

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION V

Page 1 of 1

EPA ID: IND980904379 Site Name: BECK'S LAKE SITE

State ID:

Alias Site Names: LASALLE PARK

City: SOUTH BEND

Refer to Report Dated: 6/2/2011

County or Parish: ST. JOSEPH

State: IN

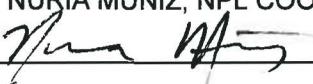
Report Developed By: STATE

Report Type: EXPANDED SITE INSPECTION 002

- 1. Further Remedial Site Assessment Under CERCLA (Superfund) is not required because:
Assessment Complete - Decision Needed
- 2. Further Assessment Needed Under CERCLA:

Discussion/Rationale:

Site Decision Made by: NURIA MUNIZ, NPL COORDINATOR

Signature:  Date: 06/02/2011

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
EXPANDED SITE INSPECTION 2 REPORT

FOR
BECK'S LAKE SITE
SOUTH BEND, IN
ST. JOSEPH COUNTY

U.S. EPA ID: IND980904379

December 20, 2009

Signature Page
for
BECK'S LAKE SITE
Expanded Site Inspection 2
SOUTH BEND, INDIANA
ST JOSEPH COUNTY
U.S. EPA ID:IND980904379

Prepared By:

Timothy R Johnson Date: 1/28/10
TIM JOHNSON PROJECT MANAGER
Site Investigation Section
Indiana Department of Environmental Management

Approved By:

Gabrielle Seuer Date: 1/28/10
GABRIELE HAUER, SECTION CHIEF
Site Investigation Section
Indiana Department of Environmental Management

Approved By:

Yvonne M Date: 6/2/11
EPA SITE ASSESSMENT MANAGER
U.S. EPA Region V

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SECTION I

INTRODUCTION

The Indiana Department of Environmental Management (IDEM), Site Investigation Section, under a Cooperative Agreement (CA) with the United States Environmental Protection Agency, Region V (U. S. EPA), has been funded to perform Expanded Site Inspections (ESI) at certain sites listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). This work is conducted under the authority of the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (a.k.a. Superfund), and the Superfund Amendments and Reauthorization Act (SARA) of 1986. Sites eligible for ESIs include those sites for which the Screening Site Inspection (SSI) did not conclude that "No Further Remedial Action is Planned" (NFRAP), as reflected in CERCLIS.

The primary objectives of the ESI are:

- To collect additional data for the Hazard Ranking System (HRS). The HRS is required to make the determination of whether the site should be placed on the National Priorities List (NPL);
- To identify sites that may require removal actions to address immediate threats to human health and/or the environment.

The Beck's Lake Site was entered in CERCLIS in April 1984. A Preliminary Assessment (PA) was completed in June 1985. A Screening Site Inspection (SSI) was conducted on March 24, 1989. An Expanded Site Inspection (ESI) was conducted on March 8, 1996 resulting in a No Further Remedial Action Planned (NFRAP) designation.

Based on the findings of a Brownfield Environmental Assessment that was conducted on the site in 2003, the U.S. EPA gave approval to reopen the site and a Site Reassessment was

conducted on June 13, 2003. Following the Site Reassessment, the Site Investigation Section was given approval to conduct an ESI 2 at the Beck's Lake Site.

The purpose of the Beck's Lake ESI 2 is to gather additional information for HRS scoring and to better assess the need for a possible removal action. The ESI 2 included on-site and off-site surface and subsurface soil samples to evaluate the soil exposure pathway to better characterize the site.

SECTION II

SITE BACKGROUND

2.1 Introduction

This section includes information obtained from the PA, SSI, and ESI reports.

2.2 Site Description

The Beck's Lake Site is located at the intersection of Washington and Falcon Street on the northwest side of South Bend. Beck's Lake, an eight (8) acre lake, is part of LaSalle Park, a 40-acre park owned by the City of South Bend. The site can be found on the U.S.G.S. South Bend West IN Quadrangle Topographic Map in sections 3,4,9, and 10, Township 37 North, Range 2 East. The site Latitude is N41 40'36" and the Longitude is W86 17'15". The park is situated north of Washington Street, south of Linden Avenue, east of Falcon Street, and west of Kaley Street in Portage Township of South Bend.

The area of concern for the purposes of this ESI is the area immediately surrounding LaSalle Park especially to the west and southwest where elevated levels of arsenic were identified during the November 2002 Brownfields Environmental Assessment and the first ESI for the site completed in February of 1996. Refer to the site location map on page 4 for a detailed location.

Beck's Lake is located on the east end of LaSalle Park. A man-made hill is located in the park just west of the lake. The hill is allegedly used for sledding in the winter. LaSalle Park also has an old backstop and remnants of a baseball infield, a soccer field, some recreational picnic areas, a playground area with permanent equipment mostly made of iron, a community



Site Location Map

Beck's Lake

EPA ID Number IND980904379

South Bend, St. Joseph County

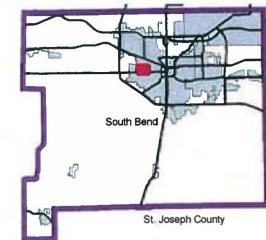


Beck's Lake/LaSalle Park

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Mapper By:
Kim Vedder, Office of Land Quality
Date: 1/5/2010

Sources:
Non Orthophotography:
Data obtained from the State of Indiana Geographical Information Office Library.
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org/)
Sample Locations: Collected by IDEM through digital interpolation, based on 2003 sample results.
Map Protection: UTM Zone 16 N **Map Datum:** NAD83



0 115 230 460 Feet
0 25 50 100 Meters

center Charles J. Black Recreation Center), parking, and significant open area that serves as additional green space.

The area surrounding LaSalle Park/Beck's Lake consists mostly of older single-and multi-family residences in a typical urban setting.

Directly adjacent to LaSalle Park on the west is a new complex of subsidized housing and apartments called LaSalle Park Homes. It fronts Falcon Street the length of the west boundary of LaSalle Park from north to south. Beyond LaSalle Park homes to the west is a highly populated residential area. Across Washington Street to the south is another smaller older single story apartment complex and a residential area. Adjacent land to the north of LaSalle Park across Linden Road is a wooded area with a quarry and a railroad. To the east is Kaley Avenue and a light industry named Prime Source Supply.

2.3 Site History

According to the St. Joseph County Auditor records the current owner of LaSalle Park/ Beck's Lake is the South Bend Parks Department. The Park was acquired from the South Bend Redevelopment Commission in the 1960's. Historic aerial photos obtained from the Indiana State Archives (Appendix G) indicate, from sometime before 1951, to no later than 1974, a housing project existed on the property. Reportedly the debris from the demolition of the housing project may be beneath the cover of the on-site hill. The aerials also reveal that Beck's Lake was created around the early 1960's and prior to that the hill apparently didn't exist.

According to the 1989 Screening Site Inspection (SSI) for Beck's Lake the property was used as a dump up to the 1950s. Historic aerial photos clearly indicate that dumping began at the site as early as 1938. (Appendix H) A 1984 103(c) notification to the United States

Environmental Protection Agency (U.S. EPA, EPA) from Bendix Corporation, a manufacturing facility for the automotive/aerospace industry, revealed that Bendix, together with other numerous companies and individuals, dumped hazardous substances on the site "at some time during the past 40 years", but ending in the mid 1950's. Materials listed on the 103(c) notification included but were not limited to; asbestos, plating wastes, solvents, paint wastes, oils and sludges, and foundry sand that contained, among other contaminants, arsenic. (Appendix I) Aerial photos from 1938 and 1951 (Appendix H) revealed significant evidence of fill material being dumped near the western half of the site near what is now the parking area/playground area for the community center on site and north nearly to Linden Road. Based on a very old map of the area from 1919 provided by the St Joseph County Health Department, this area used to be a lake called LaSalle Lake. No documentation could be found relating what happened to the lake but the early aerial photos (Appendix H) show a faint outline of where it may have been. The 1951 aerial photo (Appendix H) depicts both dumping onsite and the housing project that existed concurrently on the site.

CERCLIS involvement in this site began in 1985 with a Preliminary Assessment (PA). A Site Inspection (SI) was conducted in 1989, an expanded Site Inspection (ESI) was conducted in 1996, and the site was archived during the same year. In 2003 the site was reopened with a Reassessment (RA) as a result of the findings of a Brownfield Environmental Assessment. The findings of the RA revealed that arsenic levels in the nearby neighborhood especially south and west of the site were elevated compared to the surrounding area. This ESI is an attempt to collect additional data to better characterize the soil exposure pathway for the Hazard Ranking System, and to identify potential sources of the arsenic contamination in the LaSalle Park area.

SECTION III

EXPANDED SITE INSPECTION PROCEDURES

3.1 Introduction

This section outlines the procedures, and observations of the Beck's Lake Site investigation. A workplan for the ESI 2 was prepared and approved by the U.S.EPA in September 2009. The ESI 2 was conducted in compliance with IDEM's approved Site Investigation Program Quality Assurance Project Plan, effective April 30, 2008.

3.2 Site Representative Interview and Reconnaissance Inspection

On August 27, 2009, MSSRS. Tim Johnson and Dan Chesterson representing IDEM conducted a site reconnaissance at the Beck's Lake Site. John Lankowicz from the St. Joseph County Health Department met IDEM staff on-site to represent local interests. During the site reconnaissance all parties toured the site and identified locations to complete soil borings on the park property in an attempt to identify source material for the arsenic contamination. Afterward, a tour of the neighborhood was taken to become familiar with locations previously sampled during the Reassessment and to identify new locations to collect samples to identify potential targets for the investigation.

After touring the site and the surrounding area IDEM accompanied Mr. Lankowicz back to the Health Department where he was able to locate some ownership and transfer records for the site.

3.3 Sample Procedures and Analytical Results

The laboratory results from the October 2009 sampling event of the Beck's Lake Site have been determined to be acceptable for use and meet the criteria contained in the Contract

Laboratory Program (CLP) for level three data validation. Any exceptions to the acceptance of this data will be identified in the QA/QC memorandum by U.S. EPA chemists. (Appendix D)

Soil samples for this investigation were collected using a disposable plastic scoop that was dedicated to each sample. Subsurface soils were collected using a direct push device to gain access to the subsurface. Rods for the direct push device were decontaminated in between each boring to assure that no cross contamination occurred between borings. The soils were collected and placed into a plastic zip-lock baggie, homogenized inside the bag, and field screened with an X-Ray Fluorescence machine (XRF) to make an approximate determination of their arsenic content in the field. Samples that appeared to show arsenic levels in significant amounts were transferred into eight (8) ounce glass jars for delivery and subsequent analysis at the CLP laboratory. Nitrile surgical gloves were worn and discarded between each sample. Refer to the soil sample location map (Appendix E) for the location of each soil sample.

3.4 Soil Samples

Soil samples were collected by IDEM at locations determined during the reconnaissance inspection to best determine the number of targets affected and to ascertain that Beck's Lake/LaSalle Park is the source of the arsenic contamination in the surrounding neighborhood.

On October 5-6, 2009 a total of 40 soil samples including four (4) duplicates and six (6) background samples were collected to gather enough information to adequately characterize contamination for the purposes of the ESI2. The soil samples were identified as ME2QT0-ME2QT9, ME2QW0-ME2QW9, ME2QX0-ME2QX9 and ME2QY0-ME2QY9. Soil sample ME2QW9 could not be found by the laboratory although it appears on the Traffic Report from IDEM and presumably was shipped with the rest of the samples in that cooler. The soil sample

and comments table, Table 1 on page 11 depicts the sample number, location, and any comments pertaining to each sample.

3.5 Summary Tables

The laboratory results for the Beck's Lake Site have been determined to be acceptable for use and meet the criteria contained in the CLP. All samples were analyzed for metal content. No other contaminants were analyzed because of the previous investigations which identified arsenic as the contaminant of concern.

A Key Findings List indicating concentrations of metals detected three (3) times above background levels can be found on page 12. Any exceptions to the acceptance of this data will be identified in the QA/QC memorandum by the U.S. EPA Chemists. Refer to appendix D for complete chemical analysis data provided by the laboratory.

Table 1

Sample Location and Comment Table
Soil Samples

Station ID	Sample ID	Location	Depth	Comments
S1	ME2QT0	114 S. Lake Street South Bend	Top 6 inches	Black sandy loam soil
S2	ME2QT1	122 S. Lake Street South Bend	Top 6 inches	Black sandy loam
S3	ME2QT2	218 Illinois front yard	Top 6 inches	Dark black sandy loam
S23	ME2QT3	Duplicate of S23	Top 6 inches	Dark black sandy loam
S4	ME2QT4	South east corner of unit 111 LaSalle Park Homes, 111 Falcon Street	Top 6 inches	Black, no odor, sandy loam
S5	ME2QT5	East of apartment 161 LaSalle Park Homes, 161 Falcon Street	Top 6 inches	Black, sandy, no odor
S6	ME2QT6	Taken from LaSalle Park Homes senior residence, grassy strip on north boundary	Top 6 inches	Brown/black, no odor
S7	ME2QT7	139 South Wellington, front yard near 3 large pines	Top 6 inches	Black no odor, sandy loam
S8	ME2QT8	135 Falcon Street, LaSalle Park Homes, 4 feet west of sycamore tree	Top 6 inches	Brown to black loam, some roots
S9	ME2QT9	Duplicate of S8	Top 6 inches	Brown to black loam, some roots
S10	ME2QW0	Ten feet west of entrance to William Ellison Residence 10 feet north of Washington Street.	Top 6 inches	Brown to black loam, some roots some sand.
S11	ME2QW1	Taken from back yard at LaSalle Park Homes unit 251	Top 6 inches	Black sandy loam, no odor
S12	ME2QW2	Duplicate of S11	Top 6 inches	Black sandy loam, no odor
S13	ME2QW3	Taken from front yard of LaSalle Park Homes unit 251	Top 6 inches.	Dark brown-black sandy loam
S14	ME2QW4	Taken from front yard, 225 N. Falcon Street	Top 6 inches	Brown – black sandy loam
S15	ME2QW5	Alley Driveway of 262 N. Illinois	Top 6 inches	Dark brown sandy soil
S16	ME2QW6	Front yard of 266 N. Illinois	Top 6 inches	Black-dark brown sandy soil
S17	ME2QW7	Taken from back yard grass area between 225 and 217 Falcon, 15 feet east of alley	Top 6 inches	Dark brown-black sandy loam
S24	ME2QW8	Duplicate of S17	Top 6 inches	Dark brown-black sandy loam
S19	ME2QX0	Taken from center of back yard at 138 N. Illinois, 10 feet west of alley	Top 6 inches	Black-brown loam
S20	ME2QX1	Taken approximately 4 feet east of sidewalk 116 N. Kenmore Street	Top 6 inches	Black loam, some roots

S21	ME2QX2	Taken from 30 feet west of alley, back yard of 116 N. Kenmore	Top 6 inches	Black loam
S22	ME2QX3	Taken from right of way 3 feet east of street and 25 feet west/north west of house, 142 N.Kenmore Street	Top 6 inches	Black loam
S31	ME2QX4	Taken from bare area, south side of front yard, 443 Warren,	Top 6 inches	Black-dark brown sandy loam, background location
S32	ME2QX5	Taken from south side of back yard near chain link fence, 601 Dundee	Top 6 inches	Black sandy soil, background location
S33	ME2QX6	Taken from 137 S. Sheridan	Top 6 inches	Black sandy soil, background location
S34	ME2QX7	Taken from back yard, 10-12 inches west of large tree	Top 6 inches	Black sandy soil, background location
S35	ME2QX8	Taken from 251 Burbank	Top 6 inches	Black loam, some roots, background location
S36	ME2QX9	Taken from 2629 Fredrickson	Top 6 inches	Black-dark brown sandy loam with a little grass, background location
S37	ME2QY0	Taken from 1396 Roxbury Place	Top 6 inches	Dark brown-black loam, background location
S38	ME2QY1	Taken from south side of front yard, 217 Wellington	Top 6 inches	No comments
S39	ME2QY2	Taken from back yard, 237 Wellington	Top 6 inches	Black sandy loam
S40	ME2QY3	Taken from 265 Wellington	Top 6 inches	Dark Brown-black sandy loam
S51	ME2QY4	Taken from boring 1 west of backstop, east of basketball courts, at LaSalle Park	6-7 feet deep	Dark brown gravelly loam
S52	ME2QY5	Taken from boring 2, playground area west edge of LaSalle Park	2-4 feet deep	Brown gravelly sandy loam with rocks
S53	ME2QY7	Taken from boring 3, depressional area on the north west edge of LaSalle Park	3-5 feet deep	Wet brown gravelly material
S54	ME2QY8	Taken from boring 4	4-5 feet deep	Dark brown sandy material with gravel mixed in
S55	ME2QY9	Taken from boring 5	2-5 feet deep	Coarse, two tone brown gravelly material with some glass mixed in
S56	ME2QY6	Taken from boring 2, playground area at the west edge of LaSalle Park	2-5 feet deep	Almost gray, sandy material

Beck's Lake Site Key Findings List 3X Background Concentrations		
Contaminant	<u>Highest Background Concentration</u>	<u>3X Background</u>
Arsenic	7.9 ppm	23.7 ppm
Barium	112 ppm	336 ppm
Beryllium	.31 ppm	.93 ppm
Cadmium	.5 ppm	1.5 ppm
Chromium	12 ppm	36 ppm
Copper	15.1 ppm	45.3 ppm
Lead	20.4 ppm	61.2 ppm
Nickel	6.9 ppm	20.7 ppm
Silver	1.2 ppm	3.6 ppm
Zinc	61.3 ppm	183.9 ppm

Beck's Lake Site Key Findings List Surface Soils		
<u>Sample Number</u>	<u>Contaminants (3X Background)</u>	<u>Level</u>
S1	Lead	81.5 ppm
S2	Lead	78.5 ppm
S3	Arsenic Cadmium Chromium Copper Lead Zinc	28.3 ppm 3.6 ppm 80.1 ppm 46.5 ppm 83.4 ppm 430 ppm
S23 (duplicate S3)	Arsenic Cadmium Chromium Copper Lead Zinc	28.7 ppm 4.2 ppm 111 ppm 51.4 ppm 105 ppm 527 ppm
S4	Lead Silver	65.3 ppm 14 ppm
S6	Arsenic Cadmium Lead	34.3 ppm 1.5 ppm 118 ppm
S7	Lead	68.7 ppm
S8	Arsenic Cadmium Lead Zinc	29.4 ppm 1.9 ppm 296 ppm 194 ppm
S9 (duplicate S8)	Arsenic Cadmium Lead	32.7 ppm 1.8 ppm 242 ppm
S10	Arsenic Lead	29 ppm 81.4 ppm
S11	Lead	76.7 ppm
S12 (duplicate S11)	Lead	70.7 ppm
S13	Barium Cadmium Chromium Copper Lead Zinc Nickel	379 ppm 7 ppm 79.7 ppm 280 ppm 665 ppm 1030 ppm 41.3 ppm
S14	Arsenic Cadmium Lead Zinc	30.8 ppm 2.1 ppm 179 ppm 407 ppm
S17	Lead	62 ppm
S24 (duplicate of S17)	Copper Zinc	153 ppm 267 ppm
S22	Lead	157 ppm
S31	Lead	124 ppm
S36	Chromium	68.5 ppm
S39	Arsenic	25 ppm

Beck's Lake Site Key Findings List Sub Surface Soils		
<u>Sample Number</u>	<u>Contaminants (3X Background)</u>	<u>Level</u>
S51	Cadmium Copper Lead Zinc	149 ppm 736 ppm 1860 ppm 657 ppm
S52	Barium Cadmium Chromium Copper Lead Nickel Zinc	502 ppm 6.4 ppm 36.3 ppm 987 ppm 1030 ppm 53.9 ppm 2130 ppm
S53	Barium Cadmium Chromium Copper Lead Nickel Zinc	1020 ppm 19.6 ppm 59.6 ppm 567 ppm 2390 ppm 206 ppm 1960 ppm
S54	Barium Cadmium Chromium Copper Lead Nickel Zinc	565 ppm 5.2 ppm 53 ppm 169 ppm 730 ppm 38.7 ppm 853 ppm
S55	Barium Beryllium Cadmium Chromium Copper Lead Nickel Zinc	673 ppm 1.3 ppm 6.6 ppm 39.7 ppm 271 ppm 1010 ppm 55.1 ppm 1040 ppm
S56	Arsenic	24.5 ppm

SECTION IV

MIGRATION PATHWAYS

4.1 INTRODUCTION

Section IV discusses the potential migration pathways for contamination at the Beck's Lake site. The pathways discussed are soil exposure, groundwater, surface water, and air.

4.2 GROUND WATER

The ground water pathway is not a significant pathway of concern for the purposes of this ESI. Residents in the area surrounding the Beck's Lake Site utilize a municipal water supply. South Bend's municipal water supply comes from ground water wells that lie approximately three (3) miles from LaSalle Park. South Bend's water supply has historically been impacted by contamination due to the nature of the soils there and South Bend's heavily industrialized past and present. The Beck's Lake Site dumping is not suspected to have been a contributor to any water quality problems experienced by the city.

4.3 SURFACE WATER

Natural drainage patterns for the Beck's Lake site and surrounding area have been artificially altered by urbanization of the area. Surface water that doesn't flow into Beck's Lake on site or soak into the ground may get off site and enter the cities combined sewer system where it ultimately ends up at the municipal treatment plant. Aside from Beck's Lake itself the nearest surface water body is the St. Joseph River that flows approximately two (2) miles east of the site. The average flow of the St. Joseph River from the nearest stream gauging station is 3262.5 cubic feet per second. No surface water samples were collected during this ESI.

4.3.1 DRINKING WATER THREAT

The city of South Bend utilizes ground water to service the needs of the city. The South Bend city water supply services approximately 113,000 residents within and outside of the city. The city draws its water from 31 ground water wells located in nine (9) separate well fields. There are no surface water intakes in the city of South Bend. The nearest significant surface water body to LaSalle Park is the St. Joseph River that lies just over two miles east of the park. The St. Joseph River flows north into Michigan. (Appendix B) No surface water intakes are known to exist within 15 miles of the probable point of entry for the site. LaSalle Park does not lie within the wellhead protection area for the city of South Bend and is not expected to impact the city's water supply.

4.3.2 HUMAN FOOD CHAIN

Beck's Lake itself lies within LaSalle Park and is considered a fishery. Research and interviews conducted during earlier stages of this investigation revealed that some citizens may catch, keep, and eat fish caught from Beck's Lake. Samples collected during the Brownfield Environmental Assessment conducted at Beck's Lake during 2001 revealed no contaminants of concern for fish in Beck's Lake.

Indiana's Fish Consumption Advisory published by the Indiana State Department of Health and the Indiana Department of Natural Resources does not list Beck's Lake as an impacted fishery. However, the most recent fish advisory issued by the Indiana State Department of Health and the Indiana Department of Natural Resources states all waters in the state of Indiana are subject to a level 2 fish advisory unless otherwise stated. The human food chain threat does not appear to be a significant threat for the purposes of this ESI.

4.3.3 ENVIRONMENTAL THREAT

The Indiana Department of Natural Resources/ Division of Nature Preserves- Heritage Program (IDNR/DNP-HP) documents sensitive environments and/or endangered or threatened species within the State of Indiana. Based on this resource the following endangered species have been identified within one mile of the Beck's Lake site: The state threatened plant Lathyrus Venosus, smooth veiny pea, was documented in close proximity to the site in 1929. It still exists on the State's list of endangered and rare species in St. Joseph County. No other endangered threatened or rare species were identified for the area of concern. No significant concentrations of metals were detected that would significantly impact any known endangered species' in the area. There do not appear to be any significant issues involving the environmental threat.

4.4 SOIL EXPOSURE

Soil exposure is the most likely source of potential exposure at the Beck's Lake Site. Arsenic in residential soils is the main concern for the Beck's Lake ESI 2. A total of 40 samples were collected during the October 5-6 sampling event of the Beck's Lake Site to determine the scope of arsenic contamination in the area surrounding the site and to determine the source of the contamination. Refer to the Soil Sample Location Map in Appendix E for sample numbers and their locations. Samples from the Beck's Lake investigation contained arsenic in concentrations ranging from 2.7 to 32.6 parts per million (ppm). A total of six (6) surface soil samples contained arsenic levels above three times the highest background level collected during this sampling event which was 23.7 parts per million. See the Key Findings List on page 13 for a complete list of analytes that were detected at three times the background level for the site. Subsurface samples collected from borings onsite at LaSalle Park in the area where historic dumping is suspected to

have occurred revealed arsenic levels in a range from 7.0-24.5 ppm. Subsurface soil samples S51, S52, S53, and S55 contained elevated lead levels in excess of 1000 ppm. Only one (1) off-site surface soil sample was found to contain lead levels exceeding three (3) times the highest background concentration. The highest lead level off the Beck's Lake Site was 665 ppm in surface soil sample S13. (see Key Findings List page 12) High levels of zinc were detected in both on-site borings and surface soil samples that were collected across Falcon Street from the west edge of LaSalle Park. Although three (3) times background was detected in two (2) off-site surface soil samples, S13 at 828 ppm and S14 at 407 ppm, the levels were still below applicable reference doses in the Superfund Chemical Data Matrix (SCDM). Barium, chromium, cadmium, copper, and silver were the only other metals detected at levels that were three (3) times the background in the LaSalle Park area (see Key Findings List page 12). None were in quantities that approached unsafe levels based on the Superfund Chemical Data Matrix. Two residences west of LaSalle Park displayed high levels of arsenic, above three times background levels, in their yards. Five residents lived in those homes. Most of the high arsenic levels were detected directly across Falcon Street from the west edge of LaSalle Park at LaSalle Park Homes. Fifty two (52) residents live in units at LaSalle Park Homes where the high levels of arsenic were detected. The historical photos collected for this investigation reveal that Falcon Street was once only a partial street that ended in the middle of what was then the contiguous property that now makes up LaSalle Park. In the historic aerial photo for 1951 (Appendix H) the edge of the dumping area can be seen extending to the edge of this partial road. The outline of what is assumed to be the former bed of LaSalle Lake, and some truck paths extend beyond the edge of the partial road in the area that is now the north east boundary of LaSalle Park Homes. It is likely that before it was developed this area was filled with the same

material that was dumped and spread in the LaSalle Park area.

4.5 AIR

No air samples were taken for the purposes of this ESI. No odors or recognizable releases to air were noted during the inspection. Presently, there are no reports of adverse health effects to area residents or workers as a result of air releases from the site. There does not appear to be a risk to nearby residents from the air pathway of this site.

5.0 SUMMARY AND CONCLUSIONS

The property now known as Beck's Lake/LaSalle Park in South Bend, Indiana was once a dumping area used by the Bendix Corporation, a manufacturer for the automotive and aerospace industry, in the 1930's 1950's. From the 1950's to present this area has been turned into a park and some residential housing by the City of South Bend. High levels of arsenic were discovered in the areas immediately west and southwest of the Park in the 1990's by IDEM. The details of this report are the summation of the most recent investigatory findings at Beck's Lake/LaSalle Park and the surrounding neighborhood, identifying Beck's Lake/LaSalle Park as a source for surrounding arsenic levels that exceed naturally occurring arsenic levels in the same area.

REFERENCES

1. Brownfield Environmental Assessment for LaSalle Park/Beck's Lake, Indiana Department of Environmental Management, November 4, 2002.
2. U.S. EPA Expanded Site Assessment, Beck's Lake Site, South Bend, St Joseph County, February, 19,1996.

APPENDIX A

**Beck's Lake,
EPA ID Number IND980904379
South Bend, St. Joseph County, IN
Four Mile Radius Map
41°40'36.95"N 86°17'41.40"W**

Buffer Distance	Adjusted Population
0.25 Mile	1031
0.5 Mile	3220
1 Mile	9920
2 Mile	19275
3 Mile	14535
4 Mile	21156
Total Adjusted Population	69231

Mapped by: Kim Vender, Office of Land Quality, Engineering & GIS Services, January 5, 2010

Sources:
IDEM 4 Mile Mapper Application
Indiana Geographic Information Office Data Library
Digital BSS Digital Orthophotographs (24,000 Topographic Map
Census Block Group, 2000 (Total population)

Disclaimer: This map does not represent a legal document. It is intended to serve as an aid in graphic representation only. There are known sources of error in the population estimates presented on this map including:

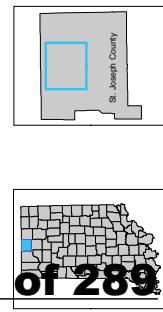
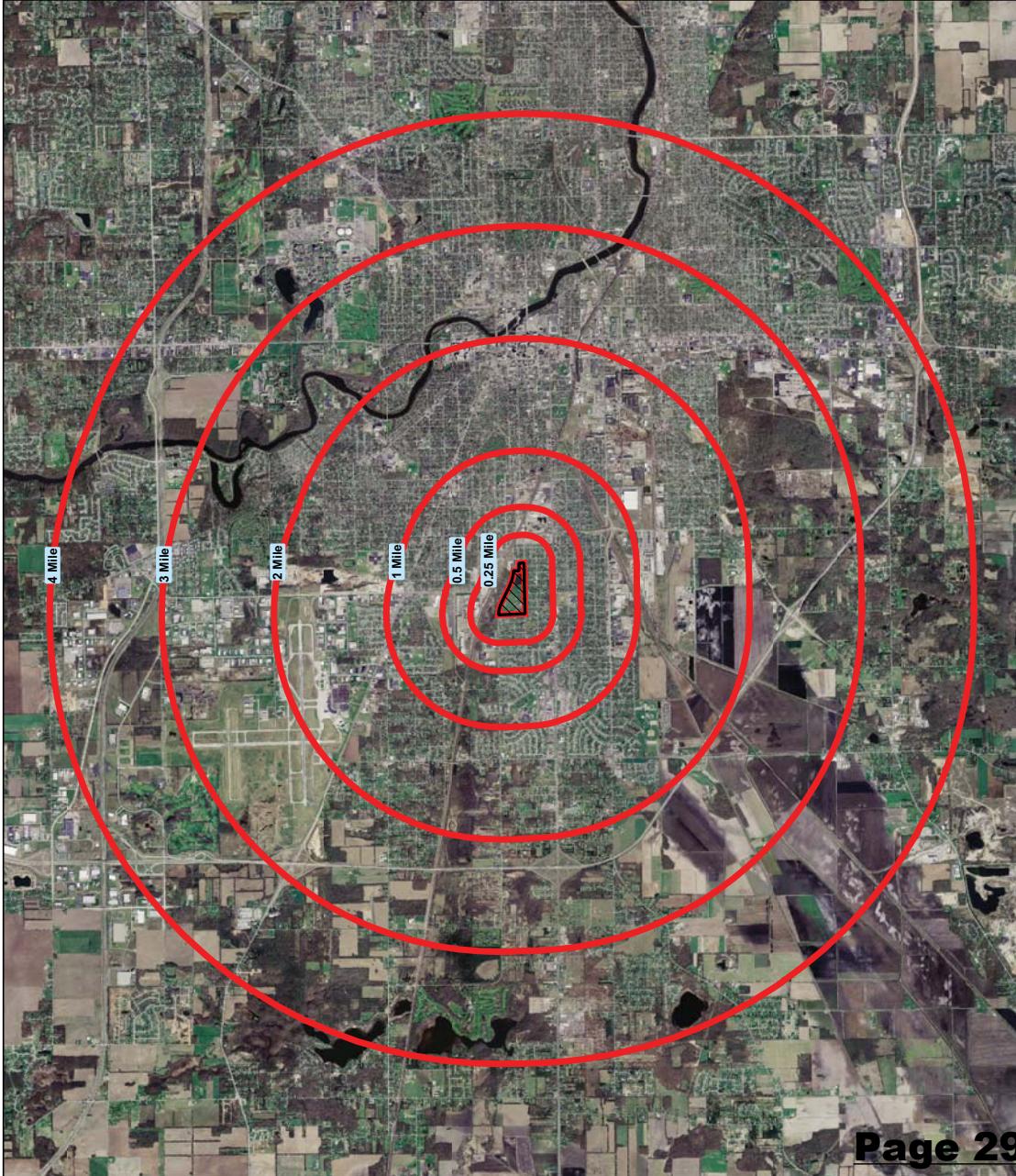
1. The Census 2000 block group population total is cut off at 0, and itself an imprecise estimate of population.
2. The study area is a buffer around the location of the site. Due to this assumption, the adjusted population is distributed in each block group polygon. Due to this assumption, the adjusted population for the 0.25 mile buffer distance is assumed to be zero.
3. The Census 2000 block group population has been clipped to include Indiana data only.

Method of Estimating Population: The adjusted population estimate is the sum of Census 2000 block group populations contained inside the buffer distances. The adjusted population estimate is as follows:

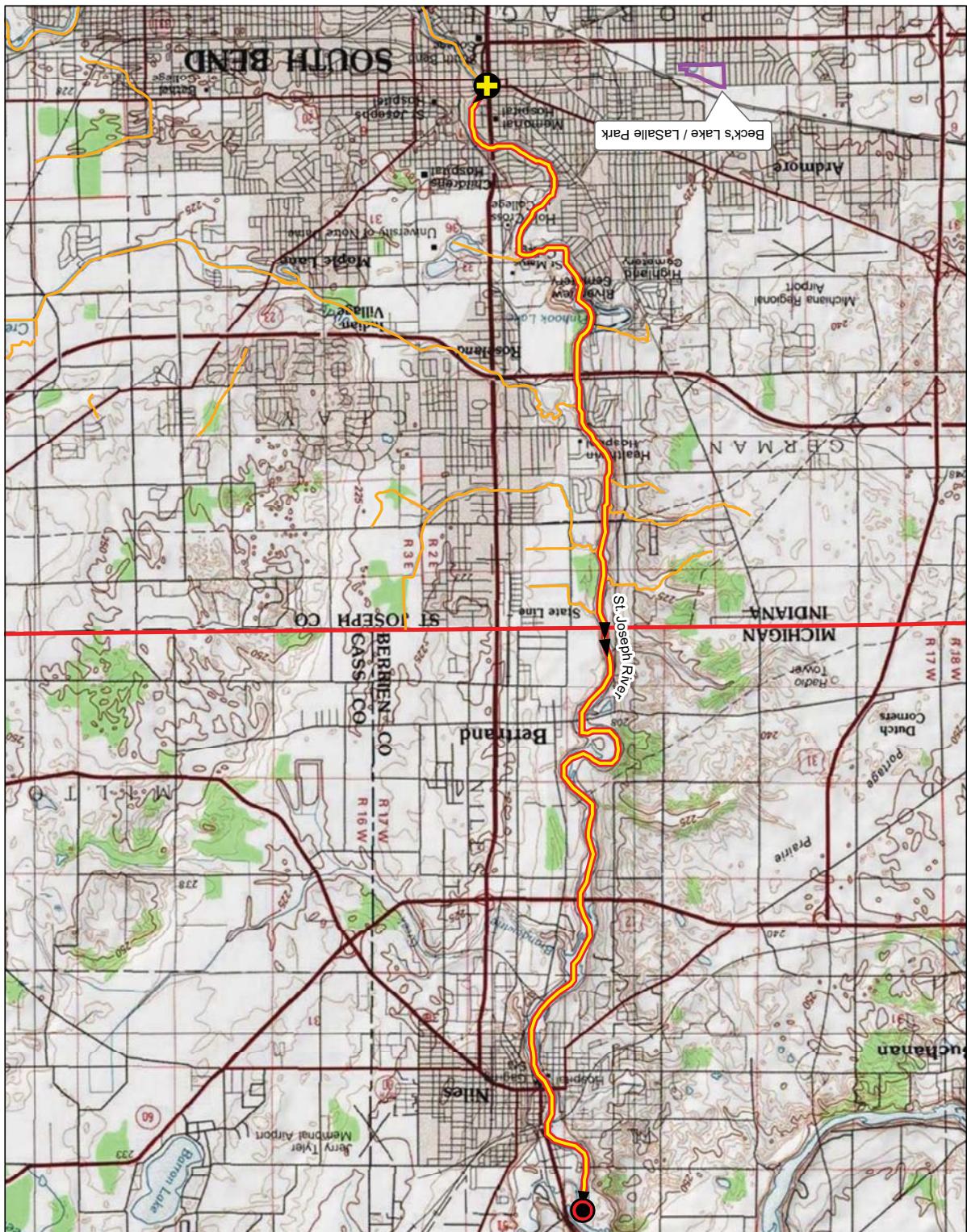
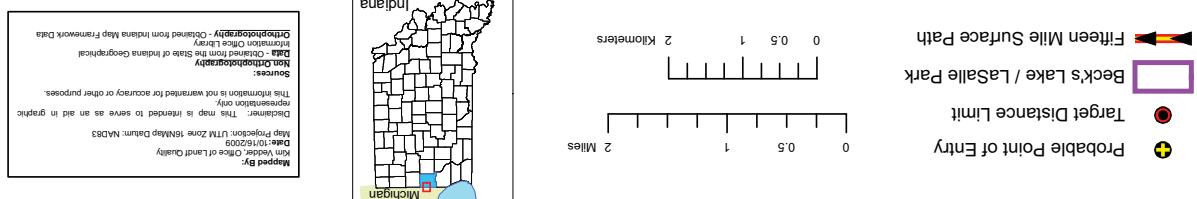
1. The study area is drawn on screen by the user. The analysis area can be 1 or more polygons.
2. The user selects the polygon(s) on screen by the user. The study area and the buffers are stored as polygons in a shapefile.
3. The study area and buffers are multiplied by 0.0001, ¼, ½, ¾, 1, 2, 3 and 4 miles. The buffers are stored as a shapefile.
4. A spatial union is performed on the block group layer and the buffers layer resulting in a new layer containing polygons reflecting the combined geography of the block groups and the buffers. This new polygons inherit the attributes of the parent polygons from the block groups and buffer layers, including the population and area of the parent block group polygon. The area of the new polygons is calculated automatically during the union.
5. The area and attributes of the new polygons are summed and the total population is calculated using a piece of visual basic code. See which is described in the following steps.
6. Following step 5, each new polygon has an attribute record containing the geographic area of the new polygon, the geographic area of the parent block group and the TOT/POP field containing the population value from the parent block group. Dividing the area of the new polygon by the area of the parent block group and multiplying that value by the population yields a population estimate for each new polygon. For example block group A with an area of 1 square miles and a population of 200 people is split into 2 polygons by a 1-mile buffer ring. The area of the block group inside the 1-mile buffer is 7.8 square miles, or 21% of the area of Block Group A. That is within the 1-mile buffer ring the population would be 40 people (200 * .21 = 42). The total population from Block Group A that is within the 1-mile buffer ring would also be 20% of the total population for the Block Group.
7. The new population figure from step 6 is automatically summed and compiled into a table that is displayed on the print layout. The automatic summing process is completed by the 4 Mile Mapper application produces population estimates that include the entire population from the site out to each buffer distance (e.g. 0 to 0.25, 0 to 0.5, 0 to 1, 0 to 2,...). The major buffer distances are 0.25, 0.5, 1, 2, and 4 miles. The buffer distances are determined by the user and the buffer distance is the next largest buffer distance that is greater than the current buffer distance. The buffer distance is added to the previous buffer distance until the buffer distance is greater than the current buffer distance.

6. The population figure from step 6 is added to the population figure from the site out to the 4 mile buffer distance.

This map was created using 4 Mile Mapper v1.0.0 a customized application developed in ArcGIS
by the Office of Land Quality, Science Services Section by Mr.
Rob Johnson, St. Joseph County, Indiana. 4 Mile Mapper v1.0.0 was created during
the Spring of 2004
Rev. Spring of 2004
St. Joseph County's Public Service Agency. 4 Mile Mapper v1.0.0 was created during



APPENDIX B



Beck's Lake, EPA ID Number IND980904379
South Bend, St. Joseph County, IN
15 Mile Surface Water Map



APPENDIX C



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 9:50 AM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QT6, S6

SAMPLE TYPE: Surface Soil **PHOTO BY:** Tim Johnson

DESCRIPTION: S6 Taken with background from Senior Residence, LaSalle Park
Homes North Boundary, Falcon Street; top 6 inches.



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 9:50 AM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QT6, S6

SAMPLE TYPE: Surface Soil **PHOTO BY:** Tim Johnson

DESCRIPTION: S6 Taken with background from Senior Residence, LaSalle Park
Homes North Boundary, Falcon Street; top 6 inches.



SITE:	Beck's Lake Site	SITE ID#	IND 980904379
DATE:	10/6/09	TIME:	9:50 AM
WEATHER:	cloudy, cool	SAMPLE ID#	ME2QT6, S6
SAMPLE TYPE:	Surface Soil	PHOTO BY:	Tim Johnson
DESCRIPTION:	S6 Taken close up from Senior Residence, LaSalle Park Homes		



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 9:24 AM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QT5, S5

SAMPLE TYPE: Surface Soil **PHOTO BY:** Tim Johnson

DESCRIPTION: S5 Taken with background from base of tree east of unit 161; LaSalle Park Homes; 161 Falcon Street; top 6 inches.



<u>SITE:</u>	Beck's Lake Site	<u>SITE ID#</u>	IND 980904379
<u>DATE:</u>	10/6/09	<u>TIME:</u>	9:24 AM
<u>WEATHER:</u>	cloudy, cool	<u>SAMPLE ID#</u>	ME2QT5, S5
<u>SAMPLE TYPE:</u>	Surface Soil	<u>PHOTO BY:</u>	Tim Johnson
<u>DESCRIPTION:</u> S5 Taken close up from base of tree east of unit 161; LaSalle Park Homes; 161 Falcon Street; top 6 inches			



<u>SITE:</u>	Beck's Lake Site	<u>SITE ID#</u>	IND 980904379
<u>DATE:</u>	10/6/09	<u>TIME:</u>	9:15 AM
<u>WEATHER:</u>	cloudy, cool	<u>SAMPLE ID#</u>	ME2QT4, S5
<u>SAMPLE TYPE:</u>	Surface Soil	<u>PHOTO BY:</u>	Tim Johnson
<u>DESCRIPTION:</u> 4S Taken with background from southeast corner of unit 111			
LaSalle Park Homes, 111 Falcon Street; top 6 inches.			



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 9:50 AM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QT6, S6

SAMPLE TYPE: Surface Soil **PHOTO BY:** Tim Johnson

DESCRIPTION: S6 Taken close up from Senior Residence, LaSalle Park Homes
North Boundary, Falcon Street; top 6 inches.



SITE:	Beck's Lake Site	SITE ID#	IND 980904379
DATE:	10/6/09	TIME:	9:50 AM
WEATHER:	cloudy, cool	SAMPLE ID#	ME2QT6, S6
SAMPLE TYPE:	Surface Soil	PHOTO BY:	Tim Johnson
DESCRIPTION:	S6 Taken with background from Senior Residence, LaSalle Park		





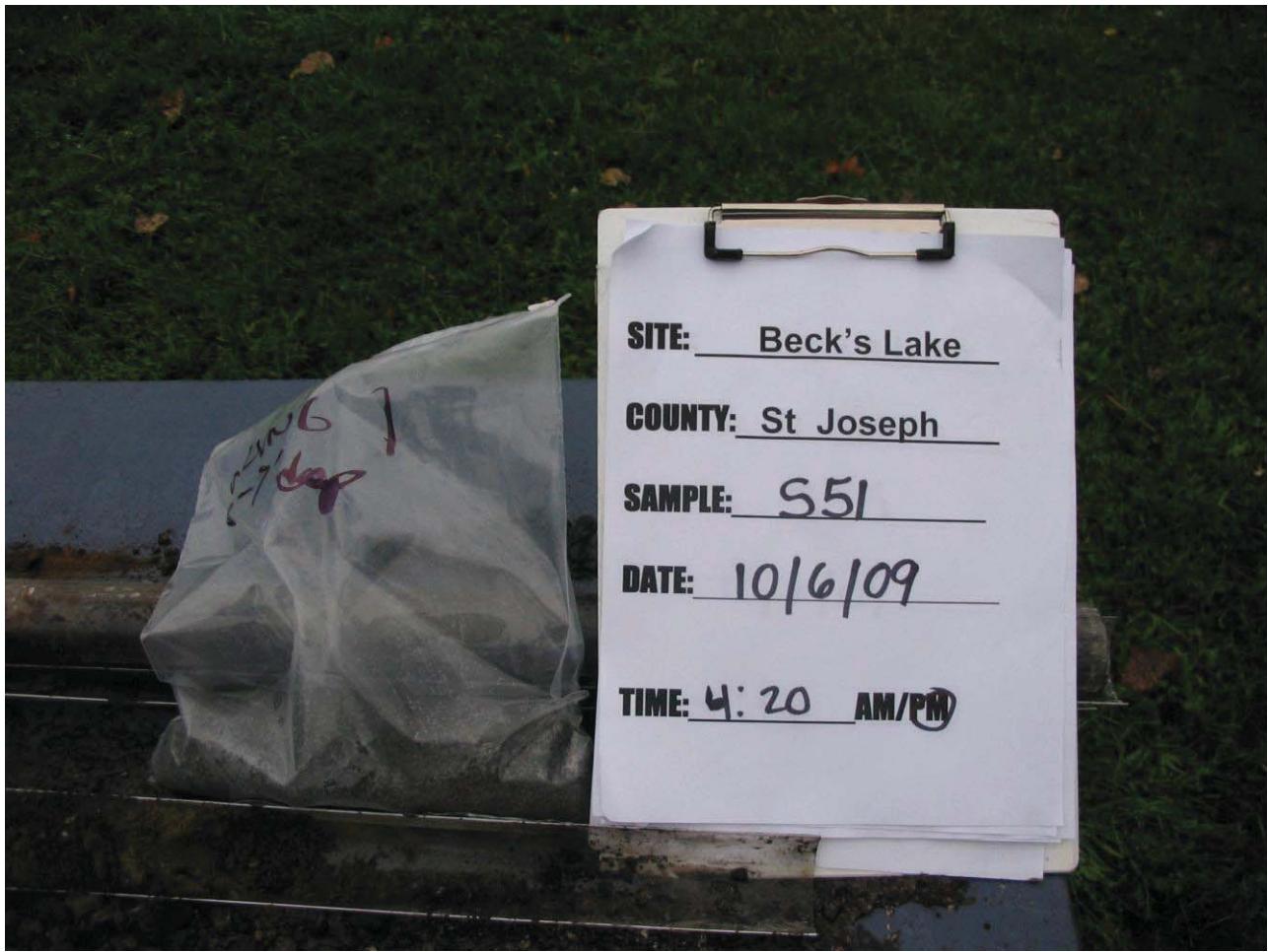












SITE: Beck's Lake Site **SITE ID#** IND 980904379
DATE: 10/6/09 **TIME:** 4:20 PM
WEATHER: cloudy, cool **SAMPLE ID#** ME2QW4, S51
SAMPLE TYPE: Surface Soil **PHOTO BY:** Vickie Poole
DESCRIPTION: S51 Taken from sample collected from Boring 1 west of backstop
east of basketball courts of LaSalle Park. 6-7 feet deep.



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 4:20 PM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QY4, S51

SAMPLE TYPE: Surface Soil **PHOTO BY:** Vickie Poole

DESCRIPTION: S51 Taken from sample collected from Boring 1; west of backstop
east of basketball courts at LaSalle Park. 6-7 feet deep.



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 4:20 PM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QY4, S51

SAMPLE TYPE: Surface Soil **PHOTO BY:** Vickie Poole

DESCRIPTION: S51 Taken from sample collected from Boring 1; west of backstop
east of basketball courts at LaSalle Park. 6-7 feet deep



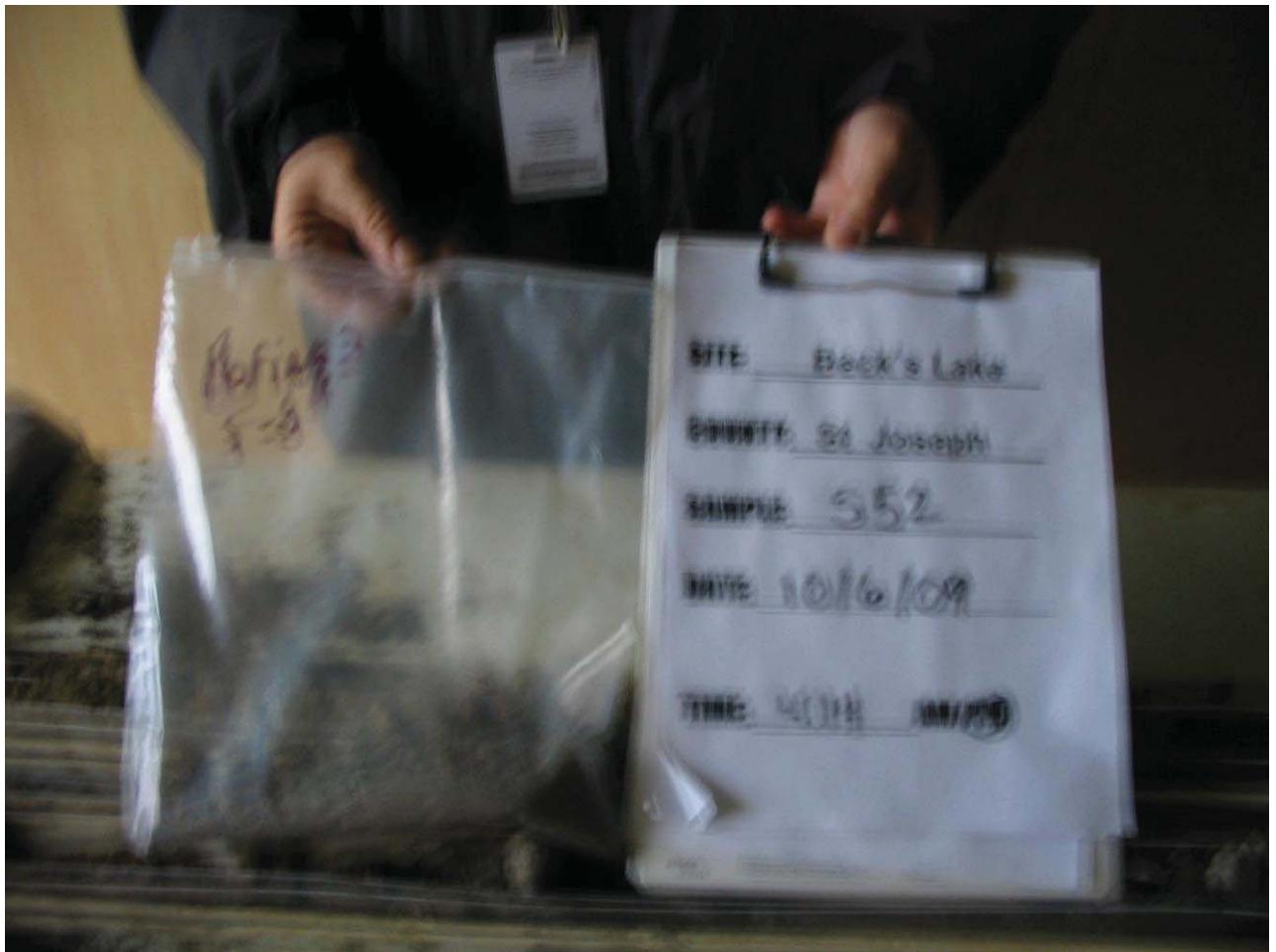
SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 4:17 PM

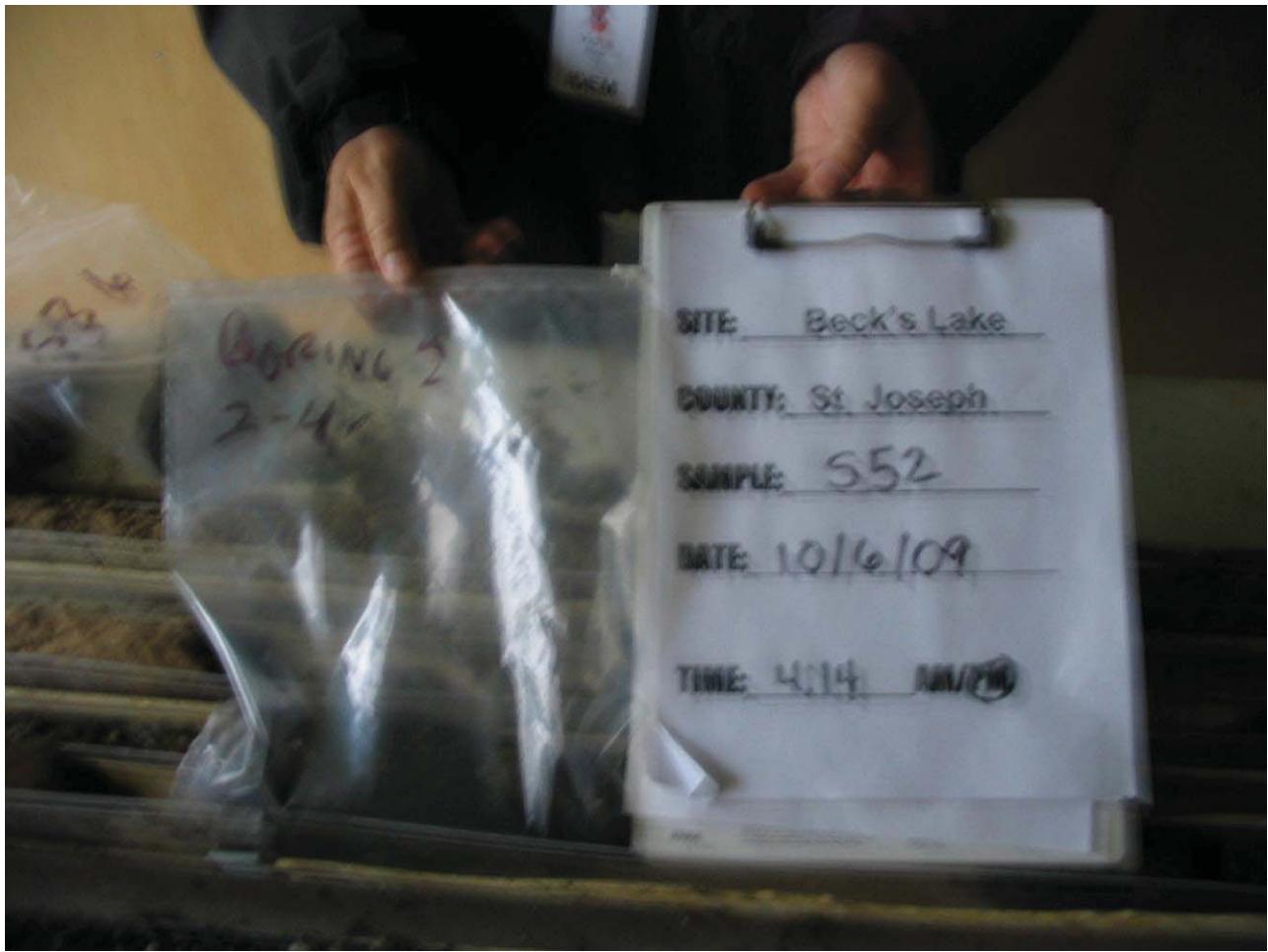
WEATHER: cloudy, cool **SAMPLE ID#** ME2QY9, S55

SAMPLE TYPE: Surface Soil **PHOTO BY:** Vickie Poole

DESCRIPTION: S55 Taken from sample collected from Boring 5; 2-5 feet deep.



SITE:	Beck's Lake Site	SITE ID#	IND 980904379
DATE:	10/6/09	TIME:	4:17 PM
WEATHER:	cloudy, cool	SAMPLE ID#	ME2QY9, S55
SAMPLE TYPE:	Surface Soil	PHOTO BY:	Vickie Poole



SITE: Beck's Lake Site **SITE ID#** IND 980904379

DATE: 10/6/09 **TIME:** 4:14 PM

WEATHER: cloudy, cool **SAMPLE ID#** ME2QY5, S52

SAMPLE TYPE: Surface Soil **PHOTO BY:** Vickie Poole

DESCRIPTION: S52 Taken from sample collected from Boring 2. Collected from playground area west edge of LaSalle Park. 2-4 feet deep.

APPENDIX D

Regional Transmittal Form

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V**

DATE: 11/12/09

SUBJECT: Review of Data
Received for review on 10/23/09

FROM: Stephen L. Ostrodka, Chief (SRT-5J)
Superfund Field Services Section

TO: Data User: IDEML

We have reviewed the data by CADRE for the following case:

SITE NAME: Beck's Lake Site (IN)

CASE NUMBER: 39095 **SDG NUMBER:** ME2QT0

Number and Type of Samples: 14 soils

Sample Numbers: ME2QT0-T9, W0-W3

Laboratory: A4 Scientific **Hrs. for Review:** _____

Following are our findings:

CC: Howard Pham
Region 5 TOPO
Mail Code: SRT-5J

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Fourteen (14) soil samples, numbered ME2QT0-T9, W0-W3, were collected on October 5-6, 2009. The lab received the samples on October 9, 2009 in good condition. All samples were analyzed for metals. All samples were analyzed using the CLP SOW ILM05.4 analysis procedures.

The inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

All percent solids calculations initially used by the laboratory were incorrect. The Laboratory resubmitted Forms 3 (results), 5A (matrix spike) and 6 (duplicate) and the percent solids logbook with the corrected values on them; however, all non-detect values are now reported 10X too low (ie ME2QT0 Sb result reported as 0.81U mg/kg when it should be 8.1U mg/kg. The uncorrected CRQL for Sb is 6.0 mg/kg).

Serial Dilution non-detects results were not reported after dilution correction (CRQL times 5). Corrections were made on Form 8 by this reviewer.

Non-standard dilution factors were used by the Laboratory (1.3X, 2.7X, 2.8X); volumes used in preparing the dilutions are not included in the case. Dilutions seem to be calculated to produce a diluted result at approximately 80% of the linear range of the element.

Due to the elevated detection limit used by the laboratory, barium and potassium cannot be seen in the LCS. The laboratory MDL (Ba = 6.8 mg/kg, K = 155 mg/kg) is greater than the upper acceptance limit for the LCS (Ba = 2.2 mg/kg, K = 85.3 mg/kg). According to the True Value Summary Table for LCSS(0405), acceptance limits for barium, potassium and sodium are advisory only. CLP does not make allowances for advisory limits. Since the laboratory cannot see the LCS values for these elements, validation of the digestion is not possible and all detects will be estimated "J" and non-detects will be estimated "UJ".

Note: All barium and potassium results are flagged "J+" by CADRE. This appears to be because CADRE used the non-detect values of 20 and 500 mg/kg respectively for the solid LCS as detects.

1. HOLDING TIME:

No defects were found.

2. CALIBRATIONS:

No defects were found for the calibration or the CRQL standards.

3. BLANKS:

No defects were found for the preparation blank or ICB/CCBs.

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

The following inorganic samples are associated with a solid laboratory control sample (LCS) with found amounts below the method detection limit (MDL). The LCS upper control limit is less than the laboratory MDL.

Hits are qualified "J" and non-detects are qualified "UJ".

Barium

ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT5, ME2QT6,
ME2QT7, ME2QT8, ME2QT9, ME2QW0, ME2QW1, ME2QW2, ME2QW3

Potassium

ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT5, ME2QT6,
ME2QT7, ME2QT8, ME2QT9, ME2QW0, ME2QW1, ME2QW2, ME2QW3

No defects were found for the matrix spike.

5. LABORATORY AND FIELD DUPLICATE:

No defects were found for the laboratory duplicate samples. No samples were identified as field duplicates.

6. ICP ANALYSIS:

The following results are affected by an interference check "A" sample (ICSA) for which false negative concentration values greater than the absolute value of the MDL were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA.

Hits less than 10 times the absolute value of the ICSA are qualified "J-", non-detects are qualified "UJ". Hits greater than 10 times the ICSA are not qualified.

Silver

ME2QT1, ME2QT2, ME2QT3, ME2QT5, ME2QT6, ME2QT8, ME2QT9,
ME2QW0, ME2QW3

The following inorganic samples are associated with negative sample results whose absolute

Reviewed by: Stephen Connet

Date: November 12, 2009

values are greater than the CRQL, indicating interference.
Non-detects are qualified "R".

Silver
ME2QT6, ME2QT8, ME2QT9, ME2QW0

No defects were found for the serial dilution.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).

Results are qualified "J".

Antimony
ME2QW3

Beryllium
ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT7, ME2QT8,
ME2QT9, ME2QW0, ME2QW1, ME2QW2, ME2QW3

Cadmium
ME2QT4, ME2QT7, ME2QW1, ME2QW2

Cobalt
ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT5, ME2QT6,
ME2QT7, ME2QW0, ME2QW1, ME2QW2, ME2QW3

Potassium
ME2QT0, ME2QT1, ME2QT4, ME2QT5, ME2QT6, ME2QT7, ME2QT8,
ME2QT9, ME2QW1, ME2QW2, ME2QW3

Selenium
ME2QT1, ME2QT2, ME2QT4, ME2QT6, ME2QW0, ME2QW3

Silver
ME2QW3

All data, except those qualified above, are acceptable.

CADRE ILM05.4 Data Qualifier Sheet

<u>Qualifiers</u>	<u>Data Qualifier Definitions</u>
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Analytical Results (Qualified Data)

Page 1 of 3

Case #: 39095

SDG : ME2QT0

Site :

BECK'S LAKE SITE

Lab. :

A4

Reviewer :

S. CONNET

Date :

11/12/2009

Number of Soil Samples : 14

Number of Water Samples : 0

Sample Number :	ME2QT0	ME2QT1	ME2QT2	ME2QT3	ME2QT4					
Sampling Location :	S1	S2	S3	S23	S4					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	10/5/2009	10/5/2009	10/5/2009	10/5/2009	10/6/2009					
Time Sampled :										
%Solids :	73.5	69.3	82.4	84.0	77.9					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	2800		4460		4360		4320		2490	
ANTIMONY	8.1	U	8.6	U	7.3	U	6.9	U	7.6	U
ARSENIC	13.9		11.5		28.3		28.7		15.9	
BARIUM	81.1	J	121	J	99.2	J	123	J	89.3	J
BERYLLIUM	0.25	J	0.36	J	0.31	J	0.31	J	0.22	J
CADMIUM	1.1		0.93		3.6		4.2		0.58	J
CALCIUM	10700		13500		13000		13500		58400	
CHROMIUM	8.6		10.5		80.1		111		5.7	
COBALT	2.8	J	3.3	J	4.2	J	4.1	J	3.4	J
COPPER	27.2		32.9		46.5		51.4		12.3	
IRON	11300		14000		13000		13000		12400	
LEAD	81.5		78.5		83.4		105		65.3	
MAGNESIUM	2140		2050		4130		3370		5370	
MANGANESE	159		153		318		377		384	
NICKEL	6.8		8.7		12.6		12.2		6.9	
POTASSIUM	235	J	535	J	735	J	781	J	235	J
SELENIUM	4.7	U	2.1	J	1.6	J	4.0	U	1.8	J
SILVER	1.3	U	1.4	UJ	2.3	J-	3.0	J-	14.0	
SODIUM	674	U	714	U	607	U	578	U	635	U
THALLIUM	3.4	U	3.6	U	3.0	U	2.9	U	3.2	U
VANADIUM	11.2		15.1		13.9		14.1		9.7	
ZINC	108		118		430		527		63.9	

Analytical Results (Qualified Data)

Page 2 of 3

Case #: 39095 SDG : ME2QT0
 Site : BECK'S LAKE SITE
 Lab. : A4
 Reviewer : S. CONNET
 Date : 11/12/2009

Sample Number :	ME2QT5	ME2QT6	ME2QT7	ME2QT8	ME2QT9					
Sampling Location :	S5	S6	S7	S8	S9					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	10/6/2009	10/6/2009	10/6/2009	10/6/2009	10/6/2009					
Time Sampled :										
%Solids :	81.4	76.9	82.6	78.6	78.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	2460		3030		3790		3250		3140	
ANTIMONY	7.4	U	7.7	U	7.2	U	7.6	U	7.6	U
ARSENIC	15.1		34.3		9.6		29.4		32.7	
BARIUM	67.5	J	137	J	71.0	J	139	J	135	J
BERYLLIUM	0.61	U	0.64	U	0.41	J	0.24	J	0.21	J
CADMIUM	0.65		1.5		0.53	J	1.9		1.8	
CALCIUM	23800		21200		6940		10100		10000	
CHROMIUM	6.9		9.4		6.9		10.3		10.4	
COBALT	2.4	J	2.6	J	2.0	J	6.3	U	6.4	U
COPPER	14.7		35.8		21.1		37.5		37.3	
IRON	12300		67100		7670		145000		153000	
LEAD	41.6		118		68.7		296		242	
MAGNESIUM	2400		3010		1270		1150		1150	
MANGANESE	237		199		81.1		213		196	
NICKEL	5.6		7.8		5.7		9.7		8.9	
POTASSIUM	265	J	520	J	318	J	399	J	389	J
SELENIUM	4.3	U	3.8	J	4.2	U	6.5		6.1	
SILVER	1.2	UJ	1.3	R	1.2	U	1.3	R	1.3	R
SODIUM	614	U	644	U	599	U	630	U	635	U
THALLIUM	3.1	U	3.2	U	3.0	U	3.1	U	3.2	U
VANADIUM	9.7		17.3		14.4		23.6		23.8	
ZINC	62.6		128		59.5		194		175	

Analytical Results (Qualified Data)

Page 3 of 3

Case #: 39095 SDG : ME2QT0
 Site : BECK'S LAKE SITE
 Lab. : A4
 Reviewer : S. CONNET
 Date : 11/12/2009

Sample Number :	ME2QW0	ME2QW1	ME2QW2	ME2QW3		
Sampling Location :	S10	S11	S12	S13		
Matrix :	Soil	Soil	Soil	Soil		
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg		
Date Sampled :	10/6/2009	10/6/2009	10/6/2009	10/6/2009		
Time Sampled :						
%Solids :	78.2	81.2	80.9	74.3		
Dilution Factor :	1.0	1.0	1.0	1.0		
ANALYTE	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4310		2780		2570	
ANTIMONY	7.5	U	7.4	U	7.4	U
ARSENIC	29.0		8.8		6.1	
BARIUM	140	J	67.1	J	56.8	J
BERYLLIUM	0.48	J	0.31	J	0.28	J
CADMIUM	1.1		0.58	J	0.52	J
CALCIUM	68000		11000		13800	
CHROMIUM	11.8		9.7		9.5	
COBALT	3.6	J	2.0	J	2.1	J
COPPER	33.0		19.5		18.6	
IRON	31900		11200		8940	
LEAD	81.4		76.7		70.7	
MAGNESIUM	4950		3590		5720	
MANGANESE	440		147		137	
NICKEL	9.9		5.0		4.9	
POTASSIUM	746	J	329	J	380	J
SELENIUM	2.7	J	4.3	U	4.3	U
SILVER	1.3	R	1.2	U	1.2	U
SODIUM	627	U	616	U	618	U
THALLIUM	3.1	U	3.1	U	3.1	U
VANADIUM	17.6		10.6		10.1	
ZINC	133		74.0		62.8	
					1030	

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CAS_RN	CHEMICAL	RESULT_V	RESULT_EF	RESULT_TV	REPORTAB	Detect_FI	LAB_QUAL	VALIDATO
7429-90-5	ALUMINUI	2800	TRG	Y	Y			
7440-36-0	ANTIMON'	8.1	TRG	Y	N	U	U	
7440-38-2	ARSENIC	13.9	TRG	Y	Y			
7440-39-3	BARIUM	81.1	TRG	Y	Y		J	
7440-41-7	BERYLLIUN	0.25	TRG	Y	Y	J	J	
7440-43-9	CADMIUM	1.1	TRG	Y	Y			
7440-70-2	CALCIUM	10700	TRG	Y	Y			
7440-47-3	CHROMIUI	8.6	TRG	Y	Y			
7440-48-4	COBALT	2.8	TRG	Y	Y	J	J	
7440-50-8	COPPER	27.2	TRG	Y	Y			
7439-89-6	IRON	11300	TRG	Y	Y			
7439-92-1	LEAD	81.5	TRG	Y	Y			
7439-95-4	MAGNESIU	2140	TRG	Y	Y			
7439-96-5	MANGANE	159	TRG	Y	Y			
7440-02-0	NICKEL	6.8	TRG	Y	Y			
7440-09-7	POTASSIUI	235	TRG	Y	Y	J	J	
7782-49-2	SELENIUM	4.7	TRG	Y	N	U	U	
7440-22-4	SILVER	1.3	TRG	Y	N	U	U	
7440-23-5	SODIUM	674	TRG	Y	N	U	U	
7440-28-0	THALLIUM	3.4	TRG	Y	N	U	U	
7440-62-2	VANADIUM	11.2	TRG	Y	Y		J	
7440-66-6	ZINC	108	TRG	Y	Y			
7429-90-5	ALUMINUI	4460	TRG	Y	Y			
7440-36-0	ANTIMON'	8.6	TRG	Y	N	U	U	
7440-38-2	ARSENIC	11.5	TRG	Y	Y			
7440-39-3	BARIUM	121	TRG	Y	Y		J	
7440-41-7	BERYLLIUN	0.36	TRG	Y	Y	J	J	
7440-43-9	CADMIUM	0.93	TRG	Y	Y			
7440-70-2	CALCIUM	13500	TRG	Y	Y			
7440-47-3	CHROMIUI	10.5	TRG	Y	Y			
7440-48-4	COBALT	3.3	TRG	Y	Y	J	J	
7440-50-8	COPPER	32.9	TRG	Y	Y			
7439-89-6	IRON	14000	TRG	Y	Y			
7439-92-1	LEAD	78.5	TRG	Y	Y			
7439-95-4	MAGNESIU	2050	TRG	Y	Y			
7439-96-5	MANGANE	153	TRG	Y	Y			
7440-02-0	NICKEL	8.7	TRG	Y	Y			
7440-09-7	POTASSIUI	535	TRG	Y	Y	J	J	
7782-49-2	SELENIUM	2.1	TRG	Y	Y	J	J	
7440-22-4	SILVER	1.4	TRG	Y	N	U	UJ	
7440-23-5	SODIUM	714	TRG	Y	N	U	U	
7440-28-0	THALLIUM	3.6	TRG	Y	N	U	U	
7440-62-2	VANADIUM	15.1	TRG	Y	Y			
7440-66-6	ZINC	118	TRG	Y	Y			
7429-90-5	ALUMINUI	4360	TRG	Y	Y			
7440-36-0	ANTIMON'	7.3	TRG	Y	N	U	U	

7440-38-2 ARSENIC	28.3	TRG	Y	Y		
7440-39-3 BARIUM	99.2	TRG	Y	Y	J	
7440-41-7 BERYLLIUM	0.31	TRG	Y	Y	J	J
7440-43-9 CADMIUM	3.6	TRG	Y	Y		
7440-70-2 CALCIUM	13000	TRG	Y	Y		
7440-47-3 CHROMIUM	80.1	TRG	Y	Y		
7440-48-4 COBALT	4.2	TRG	Y	Y	J	J
7440-50-8 COPPER	46.5	TRG	Y	Y		
7439-89-6 IRON	13000	TRG	Y	Y		
7439-92-1 LEAD	83.4	TRG	Y	Y		
7439-95-4 MAGNESIUM	4130	TRG	Y	Y		
7439-96-5 MANGANESE	318	TRG	Y	Y		
7440-02-0 NICKEL	12.6	TRG	Y	Y		
7440-09-7 POTASSIUM	735	TRG	Y	Y		J
7782-49-2 SELENIUM	1.6	TRG	Y	N	J	UJ
7440-22-4 SILVER	2.3	TRG	Y	Y		J-
7440-23-5 SODIUM	607	TRG	Y	N	U	U
7440-28-0 THALLIUM	3	TRG	Y	N	U	U
7440-62-2 VANADIUM	13.9	TRG	Y	Y		
7440-66-6 ZINC	430	TRG	Y	Y		
7429-90-5 ALUMINUM	4320	TRG	Y	Y		
7440-36-0 ANTIMONY	6.9	TRG	Y	N	U	U
7440-38-2 ARSENIC	28.7	TRG	Y	Y		
7440-39-3 BARIUM	123	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.31	TRG	Y	Y	J	J
7440-43-9 CADMIUM	4.2	TRG	Y	Y		
7440-70-2 CALCIUM	13500	TRG	Y	Y		
7440-47-3 CHROMIUM	111	TRG	Y	Y		
7440-48-4 COBALT	4.1	TRG	Y	Y	J	J
7440-50-8 COPPER	51.4	TRG	Y	Y		
7439-89-6 IRON	13000	TRG	Y	Y		
7439-92-1 LEAD	105	TRG	Y	Y		
7439-95-4 MAGNESIUM	3370	TRG	Y	Y		
7439-96-5 MANGANESE	377	TRG	Y	Y		
7440-02-0 NICKEL	12.2	TRG	Y	Y		
7440-09-7 POTASSIUM	781	TRG	Y	Y		J
7782-49-2 SELENIUM	4	TRG	Y	N	U	U
7440-22-4 SILVER	3	TRG	Y	Y		J-
7440-23-5 SODIUM	578	TRG	Y	N	U	U
7440-28-0 THALLIUM	2.9	TRG	Y	N	U	U
7440-62-2 VANADIUM	14.1	TRG	Y	Y		
7440-66-6 ZINC	527	TRG	Y	Y		
7429-90-5 ALUMINUM	2490	TRG	Y	Y		
7440-36-0 ANTIMONY	7.6	TRG	Y	N	U	U
7440-38-2 ARSENIC	15.9	TRG	Y	Y		
7440-39-3 BARIUM	89.3	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.22	TRG	Y	Y	J	J

7440-43-9 CADMIUM	0.58	TRG	Y	Y	J	J
7440-70-2 CALCIUM	58400	TRG	Y	Y		
7440-47-3 CHROMIUM	5.7	TRG	Y	Y		
7440-48-4 COBALT	3.4	TRG	Y	Y	J	J
7440-50-8 COPPER	12.3	TRG	Y	Y		
7439-89-6 IRON	12400	TRG	Y	Y		
7439-92-1 LEAD	65.3	TRG	Y	Y		
7439-95-4 MAGNESIUM	5370	TRG	Y	Y		
7439-96-5 MANGANESE	384	TRG	Y	Y		
7440-02-0 NICKEL	6.9	TRG	Y	Y		
7440-09-7 POTASSIUM	235	TRG	Y	Y	J	J
7782-49-2 SELENIUM	1.8	TRG	Y	Y	J	J
7440-22-4 SILVER	14	TRG	Y	Y		
7440-23-5 SODIUM	635	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.2	TRG	Y	N	U	U
7440-62-2 VANADIUM	9.7	TRG	Y	Y		
7440-66-6 ZINC	63.9	TRG	Y	Y		
7429-90-5 ALUMINUM	2460	TRG	Y	Y		
7440-36-0 ANTIMONY	7.4	TRG	Y	N	U	U
7440-38-2 ARSENIC	15.1	TRG	Y	Y		
7440-39-3 BARIUM	67.5	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.61	TRG	Y	N	U	U
7440-43-9 CADMIUM	0.65	TRG	Y	Y		
7440-70-2 CALCIUM	23800	TRG	Y	Y		
7440-47-3 CHROMIUM	6.9	TRG	Y	Y		
7440-48-4 COBALT	2.4	TRG	Y	Y	J	J
7440-50-8 COPPER	14.7	TRG	Y	Y		
7439-89-6 IRON	12300	TRG	Y	Y		
7439-92-1 LEAD	41.6	TRG	Y	Y		
7439-95-4 MAGNESIUM	2400	TRG	Y	Y		
7439-96-5 MANGANESE	237	TRG	Y	Y		
7440-02-0 NICKEL	5.6	TRG	Y	Y		
7440-09-7 POTASSIUM	265	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.3	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	UJ
7440-23-5 SODIUM	614	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	9.7	TRG	Y	Y		
7440-66-6 ZINC	62.6	TRG	Y	Y		
7429-90-5 ALUMINUM	3030	TRG	Y	Y		
7440-36-0 ANTIMONY	7.7	TRG	Y	N	U	U
7440-38-2 ARSENIC	34.3	TRG	Y	Y		
7440-39-3 BARIUM	137	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.64	TRG	Y	N	U	U
7440-43-9 CADMIUM	1.5	TRG	Y	Y		
7440-70-2 CALCIUM	21200	TRG	Y	Y		
7440-47-3 CHROMIUM	9.4	TRG	Y	Y		

7440-48-4 COBALT	2.6	TRG	Y	Y	J	J
7440-50-8 COPPER	35.8	TRG	Y	Y		
7439-89-6 IRON	67100	TRG	Y	Y		
7439-92-1 LEAD	118	TRG	Y	Y		
7439-95-4 MAGNESIUM	3010	TRG	Y	Y		
7439-96-5 MANGANESE	199	TRG	Y	Y		
7440-02-0 NICKEL	7.8	TRG	Y	Y		
7440-09-7 POTASSIUM	520	TRG	Y	Y	J	J
7782-49-2 SELENIUM	3.8	TRG	Y	Y	J	J
7440-22-4 SILVER	1.3	TRG	Y	N	U	R
7440-23-5 SODIUM	644	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.2	TRG	Y	N	U	U
7440-62-2 VANADIUM	17.3	TRG	Y	Y		
7440-66-6 ZINC	128	TRG	Y	Y		
7429-90-5 ALUMINUM	3790	TRG	Y	Y		
7440-36-0 ANTIMONY	7.2	TRG	Y	N	U	U
7440-38-2 ARSENIC	9.6	TRG	Y	Y		
7440-39-3 BARIUM	71	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.41	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.53	TRG	Y	Y	J	J
7440-70-2 CALCIUM	6940	TRG	Y	Y		
7440-47-3 CHROMIUM	6.9	TRG	Y	Y		
7440-48-4 COBALT	2	TRG	Y	Y	J	J
7440-50-8 COPPER	21.1	TRG	Y	Y		
7439-89-6 IRON	7670	TRG	Y	Y		
7439-92-1 LEAD	68.7	TRG	Y	Y		
7439-95-4 MAGNESIUM	1270	TRG	Y	Y		
7439-96-5 MANGANESE	81.1	TRG	Y	Y		
7440-02-0 NICKEL	5.7	TRG	Y	Y		
7440-09-7 POTASSIUM	318	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.2	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	599	TRG	Y	N	U	U
7440-28-0 THALLIUM	3	TRG	Y	N	U	U
7440-62-2 VANADIUM	14.4	TRG	Y	Y		
7440-66-6 ZINC	59.5	TRG	Y	Y		
7429-90-5 ALUMINUM	3250	TRG	Y	Y		
7440-36-0 ANTIMONY	7.6	TRG	Y	N	U	U
7440-38-2 ARSENIC	29.4	TRG	Y	Y		
7440-39-3 BARIUM	139	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.24	TRG	Y	Y	J	J
7440-43-9 CADMIUM	1.9	TRG	Y	Y		
7440-70-2 CALCIUM	10100	TRG	Y	Y		
7440-47-3 CHROMIUM	10.3	TRG	Y	Y		
7440-48-4 COBALT	6.3	TRG	Y	N	U	U
7440-50-8 COPPER	37.5	TRG	Y	Y		
7439-89-6 IRON	145000	TRG	Y	Y		

7439-92-1 LEAD	296	TRG	Y	Y		
7439-95-4 MAGNESIUM	1150	TRG	Y	Y		
7439-96-5 MANGANESE	213	TRG	Y	Y		
7440-02-0 NICKEL	9.7	TRG	Y	Y		
7440-09-7 POTASSIUM	399	TRG	Y	Y	J	J
7782-49-2 SELENIUM	6.5	TRG	Y	Y		
7440-22-4 SILVER	1.3	TRG	Y	N	U	R
7440-23-5 SODIUM	630	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	23.6	TRG	Y	Y		
7440-66-6 ZINC	194	TRG	Y	Y		
7429-90-5 ALUMINUM	3140	TRG	Y	Y		
7440-36-0 ANTIMONY	7.6	TRG	Y	N	U	U
7440-38-2 ARSENIC	32.7	TRG	Y	Y		
7440-39-3 BARIUM	135	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.21	TRG	Y	Y	J	J
7440-43-9 CADMIUM	1.8	TRG	Y	Y		
7440-70-2 CALCIUM	10000	TRG	Y	Y		
7440-47-3 CHROMIUM	10.4	TRG	Y	Y		
7440-48-4 COBALT	6.4	TRG	Y	N	U	U
7440-50-8 COPPER	37.3	TRG	Y	Y		
7439-89-6 IRON	153000	TRG	Y	Y		
7439-92-1 LEAD	242	TRG	Y	Y		
7439-95-4 MAGNESIUM	1150	TRG	Y	Y		
7439-96-5 MANGANESE	196	TRG	Y	Y		
7440-02-0 NICKEL	8.9	TRG	Y	Y		
7440-09-7 POTASSIUM	389	TRG	Y	Y	J	J
7782-49-2 SELENIUM	6.1	TRG	Y	Y		
7440-22-4 SILVER	1.3	TRG	Y	N	U	R
7440-23-5 SODIUM	635	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.2	TRG	Y	N	U	U
7440-62-2 VANADIUM	23.8	TRG	Y	Y		
7440-66-6 ZINC	175	TRG	Y	Y		
7429-90-5 ALUMINUM	4310	TRG	Y	Y		
7440-36-0 ANTIMONY	7.5	TRG	Y	N	U	U
7440-38-2 ARSENIC	29	TRG	Y	Y		
7440-39-3 BARIUM	140	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.48	TRG	Y	Y	J	J
7440-43-9 CADMIUM	1.1	TRG	Y	Y		
7440-70-2 CALCIUM	68000	TRG	Y	Y		
7440-47-3 CHROMIUM	11.8	TRG	Y	Y		
7440-48-4 COBALT	3.6	TRG	Y	Y	J	J
7440-50-8 COPPER	33	TRG	Y	Y		
7439-89-6 IRON	31900	TRG	Y	Y		
7439-92-1 LEAD	81.4	TRG	Y	Y		
7439-95-4 MAGNESIUM	4950	TRG	Y	Y		
7439-96-5 MANGANESE	440	TRG	Y	Y		

7440-02-0 NICKEL	9.9	TRG	Y	Y		
7440-09-7 POTASSIUI	746	TRG	Y	Y	J	
7782-49-2 SELENIUM	2.7	TRG	Y	Y	J	J
7440-22-4 SILVER	1.3	TRG	Y	N	U	R
7440-23-5 SODIUM	627	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	17.6	TRG	Y	Y		
7440-66-6 ZINC	133	TRG	Y	Y		
7429-90-5 ALUMINUI	2780	TRG	Y	Y		
7440-36-0 ANTIMON'	7.4	TRG	Y	N	U	U
7440-38-2 ARSENIC	8.8	TRG	Y	Y		
7440-39-3 BARIUM	67.1	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.31	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.58	TRG	Y	Y	J	J
7440-70-2 CALCIUM	11000	TRG	Y	Y		
7440-47-3 CHROMIUI	9.7	TRG	Y	Y		
7440-48-4 COBALT	2	TRG	Y	Y	J	J
7440-50-8 COPPER	19.5	TRG	Y	Y		
7439-89-6 IRON	11200	TRG	Y	Y		
7439-92-1 LEAD	76.7	TRG	Y	Y		
7439-95-4 MAGNESIUM	3590	TRG	Y	Y		
7439-96-5 MANGANESE	147	TRG	Y	Y		
7440-02-0 NICKEL	5	TRG	Y	Y		
7440-09-7 POTASSIUI	329	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.3	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	616	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.6	TRG	Y	Y		
7440-66-6 ZINC	74	TRG	Y	Y		
7429-90-5 ALUMINUI	2570	TRG	Y	Y		
7440-36-0 ANTIMON'	7.4	TRG	Y	N	U	U
7440-38-2 ARSENIC	6.1	TRG	Y	Y		
7440-39-3 BARIUM	56.8	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.28	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.52	TRG	Y	Y	J	J
7440-70-2 CALCIUM	13800	TRG	Y	Y		
7440-47-3 CHROMIUI	9.5	TRG	Y	Y		
7440-48-4 COBALT	2.1	TRG	Y	Y	J	J
7440-50-8 COPPER	18.6	TRG	Y	Y		
7439-89-6 IRON	8940	TRG	Y	Y		
7439-92-1 LEAD	70.7	TRG	Y	Y		
7439-95-4 MAGNESIUM	5720	TRG	Y	Y		
7439-96-5 MANGANESE	137	TRG	Y	Y		
7440-02-0 NICKEL	4.9	TRG	Y	Y		
7440-09-7 POTASSIUI	380	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.3	TRG	Y	N	U	U

7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	618	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.1	TRG	Y	Y		
7440-66-6 ZINC	62.8	TRG	Y	Y		
7429-90-5 ALUMINUI	5080	TRG	Y	Y		
7440-36-0 ANTIMON'	4.1	TRG	Y	Y	J	J
7440-38-2 ARSENIC	12.9	TRG	Y	Y		
7440-39-3 BARIUM	379	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.49	TRG	Y	Y	J	J
7440-43-9 CADMIUM	7	TRG	Y	Y		
7440-70-2 CALCIUM	15200	TRG	Y	Y		
7440-47-3 CHROMIUI	79.7	TRG	Y	Y		
7440-48-4 COBALT	6.2	TRG	Y	Y	J	J
7440-50-8 COPPER	280	TRG	Y	Y		
7439-89-6 IRON	22800	TRG	Y	Y		
7439-92-1 LEAD	665	TRG	Y	Y		
7439-95-4 MAGNESIUM	3140	TRG	Y	Y		
7439-96-5 MANGANE	402	TRG	Y	Y		
7440-02-0 NICKEL	41.3	TRG	Y	Y		
7440-09-7 POTASSIUI	630	TRG	Y	Y	J	J
7782-49-2 SELENIUM	1.9	TRG	Y	Y	J	J
7440-22-4 SILVER	0.66	TRG	Y	Y	J	J-
7440-23-5 SODIUM	666	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.3	TRG	Y	N	U	U
7440-62-2 VANADIUM	16.6	TRG	Y	Y		
7440-66-6 ZINC	1030	TRG	Y	Y		
7429-90-5 ALUMINUI	3320	TRG	Y	Y		
7440-36-0 ANTIMON'	8.1	TRG	Y	N	U	U
7440-38-2 ARSENIC	15.7	TRG	Y	Y		
7440-39-3 BARIUM	99.4	TRG	Y	Y		
7440-41-7 BERYLLIUM	0.29	TRG	Y	Y	J	J
7440-43-9 CADMIUM	1.3	TRG	Y	Y		
7440-70-2 CALCIUM	12900	TRG	Y	Y		
7440-47-3 CHROMIUI	9.1	TRG	Y	Y		
7440-48-4 COBALT	3	TRG	Y	Y	J	J
7440-50-8 COPPER	30.2	TRG	Y	Y		
7439-89-6 IRON	12700	TRG	Y	Y		
7439-92-1 LEAD	91.7	TRG	Y	Y		
7439-95-4 MAGNESIUM	2490	TRG	Y	Y		
7439-96-5 MANGANE	171	TRG	Y	Y		
7440-02-0 NICKEL	7.7	TRG	Y	Y		
7440-09-7 POTASSIUI	257	TRG	Y	Y	J	J
7782-49-2 SELENIUM	1.8	TRG	Y	Y	J	J
7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	673	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.4	TRG	Y	N	U	U

7440-62-2 VANADIUM	12.8	TRG	Y	Y		
7440-66-6 ZINC	115	TRG	Y	Y		
7429-90-5 ALUMINUI	3250	SC	Y	Y		
7440-36-0 ANTIMON'	25.7	SC	Y	Y		
7440-38-2 ARSENIC	22.8	SC	Y	Y		
7440-39-3 BARIUM	618	SC	Y	Y		
7440-41-7 BERYLLIUM	13.3	SC	Y	Y		
7440-43-9 CADMIUM	13.4	SC	Y	Y		
7440-70-2 CALCIUM	10300	SC	Y	Y		
7440-47-3 CHROMIUI	61	SC	Y	Y		
7440-48-4 COBALT	140	SC	Y	Y		
7440-50-8 COPPER	93.3	SC	Y	Y		
7439-89-6 IRON	10900	SC	Y	Y		
7439-92-1 LEAD	84.1	SC	Y	Y		
7439-95-4 MAGNESIUM	2060	SC	Y	Y		
7439-96-5 MANGANE	286	SC	Y	Y		
7440-02-0 NICKEL	139	SC	Y	Y		
7440-09-7 POTASSIUI	218	SC	Y	Y	J	J
7782-49-2 SELENIUM	13.8	SC	Y	Y		
7440-22-4 SILVER	12.3	SC	Y	Y		
7440-23-5 SODIUM	674	SC	Y	N	U	U
7440-28-0 THALLIUM	12.6	SC	Y	Y		
7440-62-2 VANADIUM	141	SC	Y	Y		
7440-66-6 ZINC	231	SC	Y	Y		

ORGANIC_	REPORTIN	RESULT_U	DETECTIO	RESULT_C	FRACTION	LABNAME	PH	TEST_BATC
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		10	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1.5	MG/KG	MG/KG	M	A4 SCIENT		
N		4	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		3.5	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
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N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
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N		1.5	MG/KG	MG/KG	M	A4 SCIENT		
N		4	MG/KG	MG/KG	M	A4 SCIENT		
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N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
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N		6	MG/KG	MG/KG	M	A4 SCIENT		

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CASE

Regional Transmittal Form

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V**

DATE: 11/9/09

SUBJECT: Review of Data
Received for review on 10/23/09

FROM: Stephen L. Ostrodka, Chief (SRT-5J)
Superfund Field Services Section

TO: Data User: IDEML

We have reviewed the data by CADRE for the following case:

SITE NAME: Beck's Lake Site (IN)

CASE NUMBER: 39095 **SDG NUMBER:** ME2QW4

Number and Type of Samples: 12 soils

Sample Numbers: ME2QW4-W8, X0-X6

Laboratory: A4 Scientific **Hrs. for Review:** _____

Following are our findings:

CC: Howard Pham
Region 5 TOPO
Mail Code: SRT-5J

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Twelve (12) soil samples, numbered ME2QW4-W8, X0-X6, were collected on October 6, 2009. The lab received the samples on October 9, 2009 in good condition. All samples were analyzed for metals. All samples were analyzed using the CLP SOW ILM05.4 analysis procedures.

The inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

Serial Dilution non-detects results were not reported after dilution correction (CRQL times 5). Corrections were made on Form 8 by this reviewer.

Due to the elevated detection limit used by the laboratory, barium and potassium cannot be seen in the LCS. The laboratory MDL (Ba = 6.8 mg/kg, K = 155 mg/kg) is greater than the upper acceptance limit for the LCS (Ba = 2.2 mg/kg, K = 85.3 mg/kg). According to the True Value Summary Table for LCSS(0405), acceptance limits for barium, potassium and sodium are advisory only. CLP does not make allowances for advisory limits. Since the laboratory cannot see the LCS values for these elements, validation of the digestion is not possible and all detects will be estimated "J" and non-detects will be estimated "UJ".

Note: All barium and potassium results are flagged "J+" by CADRE. This appears to be because CADRE used the non-detect values of 20 and 500 mg/kg respectively for the solid LCS as detects.

1. HOLDING TIME:

No defects were found.

2. CALIBRATIONS:

No defects were found for the calibration or the CRQL standards.

3. BLANKS:

No defects were found for the preparation blank or ICB/CCBs.

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

The following inorganic samples are associated with a solid laboratory control sample (LCS) with found amounts below the method detection limit (MDL). The LCS upper control limit is less than the laboratory MDL.

Hits are qualified "J" and non-detects are qualified "UJ".

Barium

ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1,
ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

Potassium

ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1,
ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

No defects were found for the matrix spike.

5. LABORATORY AND FIELD DUPLICATE:

The following inorganic samples are associated with duplicate results which did not meet relative percent difference (RPD) primary criteria. Region 5 uses 35%RPD control criteria for soil samples.

Hits are qualified "J" and non-detects are qualified "UJ".

Zinc

ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1,
ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

No samples were identified as field duplicates.

6. ICP ANALYSIS:

The following results are affected by an interference check "A" sample (ICSA) for which false negative concentration values greater than the absolute value of the MDL were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA.

Reviewed by: Stephen Connet

Date: November 9, 2009

Hits less than 10 times the absolute value of the ICSA are qualified "J-", non-detects are qualified "UJ". Hits greater than 10 times the ICSA are not qualified.

Silver
ME2QW4, ME2QW5, ME2QW7, ME2QW8, ME2QX1

No defects were found for the serial dilution.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).

Results are qualified "J".

Beryllium
ME2QW4, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2,
ME2QX3, ME2QX4, ME2QX5, ME2QX6

Cadmium
ME2QX0, ME2QX2, ME2QX5, ME2QX6

Cobalt
ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1,
ME2QX2, ME2QX3, ME2QX5, ME2QX6

Nickel
ME2QX4

Potassium
ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1,
ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

Selenium
ME2QW4

All data, except those qualified above, are acceptable.

CADRE ILM05.4 Data Qualifier Sheet

<u>Qualifiers</u>	<u>Data Qualifier Definitions</u>
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Analytical Results (Qualified Data)

Page 1 of 3

Case #: 39095

SDG : ME2QW4

Site :

BECK'S LAKE SITE

Lab. :

A4

Reviewer :

S. CONNET

Date :

11/9/2009

Number of Soil Samples : 12

Number of Water Samples : 0

Sample Number :	ME2QW4	ME2QW5	ME2QW6	ME2QW7	ME2QW8					
Sampling Location :	S14	S15	S16	S17	S24					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	10/6/2009	10/6/2009	10/6/2009	10/6/2009	10/6/2009					
Time Sampled :										
%Solids :	78.9	91.6	78.3	83.5	83.2					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3630		1980		4380		2310		2280	
ANTIMONY	7.6	U	6.4	U	7.7	U	7.0	U	7.1	U
ARSENIC	30.8		5.4		4.1		12.2		10.3	
BARIUM	250	J	30.9	J	76.6	J	62.7	J	60.8	J
BERYLLIUM	0.39	J	0.54	U	0.45	J	0.20	J	0.23	J
CADMIUM	2.1		0.62		0.73		0.62		0.61	
CALCIUM	35900		30600		10600		9180		11400	
CHROMIUM	10.8		7.2		9.5		7.0		6.2	
COBALT	4.5	J	2.8	J	2.7	J	2.9	J	2.8	J
COPPER	75.4		20.2		37.5		24.2		153	
IRON	23200		8080		6550		13000		13400	
LEAD	179		58.4		59.3		62.0		58.2	
MAGNESIUM	3600		8510		2920		3180		3630	
MANGANESE	540		255		202		139		141	
NICKEL	11.7		6.4		7.5		7.1		6.5	
POTASSIUM	504	J	269	J	372	J	387	J	383	J
SELENIUM	2.4	J	3.7	U	4.5	U	4.1	U	4.2	U
SILVER	1.3	UJ	1.1	UJ	1.3	U	1.2	UJ	1.2	UJ
SODIUM	634	U	535	U	639	U	581	U	595	U
THALLIUM	3.2	U	2.7	U	3.2	U	2.9	U	3.0	U
VANADIUM	15.5		7.3		17.7		10.5		10.0	
ZINC	407	J	111	J	81.5	J	136	J	267	J

Analytical Results (Qualified Data)

Page 2 of 3

Case #: 39095 SDG : ME2QW4
 Site : BECK'S LAKE SITE
 Lab. : A4
 Reviewer : S. CONNET
 Date : 11/9/2009

Sample Number :	ME2QX0	ME2QX1	ME2QX2	ME2QX3	ME2QX4					
Sampling Location :	S19	S20	S21	S22	S31					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	10/6/2009	10/6/2009	10/6/2009	10/6/2009	10/6/2009					
Time Sampled :										
%Solids :	78.8	72.8	82.6	78.3	85.9					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3110		3020		3750		3050		2720	
ANTIMONY	7.5	U	8.2	U	7.3	U	7.5	U	6.8	U
ARSENIC	7.9		12.2		9.1		8.2		2.7	
BARIUM	58.4	J	62.2	J	74.7	J	58.4	J	65.2	J
BERYLLIUM	0.25	J	0.28	J	0.30	J	0.36	J	0.23	J
CADMIUM	0.48	J	0.71		0.55	J	0.65		0.58	
CALCIUM	5190		39100		7140		12500		2220	
CHROMIUM	6.3		10.9		7.0		7.1		7.8	
COBALT	2.7	J	3.3	J	3.7	J	2.9	J	5.7	U
COPPER	15.2		24.6		16.1		20.7		14.6	
IRON	7250		12300		10200		10500		3550	
LEAD	29.3		51.1		55.6		157		124	
MAGNESIUM	1080		6610		2040		4220		689	
MANGANESE	68.7		365		306		245		89.2	
NICKEL	5.4		8.0		7.2		7.7		4.0	J
POTASSIUM	289	J	286	J	496	J	376	J	298	J
SELENIUM	4.4	U	4.8	U	4.2	U	4.4	U	4.0	U
SILVER	1.3	U	1.4	UJ	1.2	U	1.3	U	1.1	U
SODIUM	628	U	687	U	605	U	626	U	571	U
THALLIUM	3.1	U	3.4	U	3.0	U	3.1	U	2.9	U
VANADIUM	10.2		10.8		12.7		11.0		7.9	
ZINC	41.6	J	73.6	J	66.8	J	79.2	J	94.7	J

Analytical Results (Qualified Data)

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Case #: 39095 SDG : ME2QW4
 Site : BECK'S LAKE SITE
 Lab. : A4
 Reviewer : S. CONNET
 Date : 11/9/2009

Sample Number :	ME2QX5	ME2QX6								
Sampling Location :	S32	S33								
Matrix :	Soil	Soil								
Units :	mg/Kg	mg/Kg								
Date Sampled :	10/6/2009	10/6/2009								
Time Sampled :										
%Solids :	76.8	73.3								
Dilution Factor :	1.0	1.0								
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4120		4400							
ANTIMONY	7.7	U	8.0	U						
ARSENIC	3.4		7.8							
BARIUM	55.8	J	64.8	J						
BERYLLIUM	0.35	J	0.33	J						
CADMIUM	0.41	J	0.56	J						
CALCIUM	23000		12800							
CHROMIUM	9.8		11.0							
COBALT	3.1	J	5.2	J						
COPPER	16.4		26.3							
IRON	5590		10100							
LEAD	30.7		28.9							
MAGNESIUM	3650		3850							
MANGANESE	338		237							
NICKEL	6.9		11.9							
POTASSIUM	509	J	515	J						
SELENIUM	4.5	U	4.7	U						
SILVER	1.3	U	1.3	U						
SODIUM	638	U	669	U						
THALLIUM	3.2	U	3.3	U						
VANADIUM	11.2		16.2							
ZINC	138	J	52.1	J						

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CAS_RN	CHEMICAL	RESULT_V	RESULT_EF	RESULT_TV	REPORTAB	Detect_FI	LAB_QUAL	VALIDATO
7429-90-5	ALUMINUI	3630	TRG	Y	Y			
7440-36-0	ANTIMON'	7.6	TRG	Y	N	U	U	
7440-38-2	ARSENIC	30.8	TRG	Y	Y			
7440-39-3	BARIUM	250	TRG	Y	Y		J	
7440-41-7	BERYLLIUM	0.39	TRG	Y	Y	J	J	
7440-43-9	CADMIUM	2.1	TRG	Y	Y			
7440-70-2	CALCIUM	35900	TRG	Y	Y			
7440-47-3	CHROMIUM	10.8	TRG	Y	Y			
7440-48-4	COBALT	4.5	TRG	Y	Y	J	J	
7440-50-8	COPPER	75.4	TRG	Y	Y			
7439-89-6	IRON	23200	TRG	Y	Y			
7439-92-1	LEAD	179	TRG	Y	Y			
7439-95-4	MAGNESIUM	3600	TRG	Y	Y			
7439-96-5	MANGANESE	540	TRG	Y	Y			
7440-02-0	NICKEL	11.7	TRG	Y	Y			
7440-09-7	POTASSIUM	504	TRG	Y	Y	J	J	
7782-49-2	SELENIUM	2.4	TRG	Y	Y	J	J	
7440-22-4	SILVER	1.3	TRG	Y	N	U	UJ	
7440-23-5	SODIUM	634	TRG	Y	N	U	U	
7440-28-0	THALLIUM	3.2	TRG	Y	N	U	U	
7440-62-2	VANADIUM	15.5	TRG	Y	Y			
7440-66-6	ZINC	407	TRG	Y	Y		J	
7429-90-5	ALUMINUI	1980	TRG	Y	Y			
7440-36-0	ANTIMON'	6.4	TRG	Y	N	U	U	
7440-38-2	ARSENIC	5.4	TRG	Y	Y			
7440-39-3	BARIUM	30.9	TRG	Y	Y		J	
7440-41-7	BERYLLIUM	0.54	TRG	Y	N	U	U	
7440-43-9	CADMIUM	0.62	TRG	Y	Y			
7440-70-2	CALCIUM	30600	TRG	Y	Y			
7440-47-3	CHROMIUM	7.2	TRG	Y	Y			
7440-48-4	COBALT	2.8	TRG	Y	Y	J	J	
7440-50-8	COPPER	20.2	TRG	Y	Y			
7439-89-6	IRON	8080	TRG	Y	Y			
7439-92-1	LEAD	58.4	TRG	Y	Y			
7439-95-4	MAGNESIUM	8510	TRG	Y	Y			
7439-96-5	MANGANESE	255	TRG	Y	Y			
7440-02-0	NICKEL	6.4	TRG	Y	Y			
7440-09-7	POTASSIUM	269	TRG	Y	Y	J	J	
7782-49-2	SELENIUM	3.7	TRG	Y	N	U	U	
7440-22-4	SILVER	1.1	TRG	Y	N	U	UJ	
7440-23-5	SODIUM	535	TRG	Y	N	U	U	
7440-28-0	THALLIUM	2.7	TRG	Y	N	U	U	
7440-62-2	VANADIUM	7.3	TRG	Y	Y			
7440-66-6	ZINC	111	TRG	Y	Y		J	
7429-90-5	ALUMINUI	4380	TRG	Y	Y			
7440-36-0	ANTIMON'	7.7	TRG	Y	N	U	U	

7440-38-2 ARSENIC	4.1	TRG	Y	Y		
7440-39-3 BARIUM	76.6	TRG	Y	Y	J	
7440-41-7 BERYLLIUM	0.45	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.73	TRG	Y	Y		
7440-70-2 CALCIUM	10600	TRG	Y	Y		
7440-47-3 CHROMIUM	9.5	TRG	Y	Y		
7440-48-4 COBALT	2.7	TRG	Y	Y	J	J
7440-50-8 COPPER	37.5	TRG	Y	Y		
7439-89-6 IRON	6550	TRG	Y	Y		
7439-92-1 LEAD	59.3	TRG	Y	Y		
7439-95-4 MAGNESIUM	2920	TRG	Y	Y		
7439-96-5 MANGANESE	202	TRG	Y	Y		
7440-02-0 NICKEL	7.5	TRG	Y	Y		
7440-09-7 POTASSIUM	372	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.5	TRG	Y	N	U	U
7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	639	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.2	TRG	Y	N	U	U
7440-62-2 VANADIUM	17.7	TRG	Y	Y		
7440-66-6 ZINC	81.5	TRG	Y	Y		J
7429-90-5 ALUMINUM	2310	TRG	Y	Y		
7440-36-0 ANTIMONY	7	TRG	Y	N	U	U
7440-38-2 ARSENIC	12.2	TRG	Y	Y		
7440-39-3 BARIUM	62.7	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.2	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.62	TRG	Y	Y		
7440-70-2 CALCIUM	9180	TRG	Y	Y		
7440-47-3 CHROMIUM	7	TRG	Y	Y		
7440-48-4 COBALT	2.9	TRG	Y	Y	J	J
7440-50-8 COPPER	24.2	TRG	Y	Y		
7439-89-6 IRON	13000	TRG	Y	Y		
7439-92-1 LEAD	62	TRG	Y	Y		
7439-95-4 MAGNESIUM	3180	TRG	Y	Y		
7439-96-5 MANGANESE	139	TRG	Y	Y		
7440-02-0 NICKEL	7.1	TRG	Y	Y		
7440-09-7 POTASSIUM	387	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.1	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	581	TRG	Y	N	U	U
7440-28-0 THALLIUM	2.9	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.5	TRG	Y	Y		
7440-66-6 ZINC	136	TRG	Y	Y		J
7429-90-5 ALUMINUM	2280	TRG	Y	Y		
7440-36-0 ANTIMONY	7.1	TRG	Y	N	U	U
7440-38-2 ARSENIC	10.3	TRG	Y	Y		
7440-39-3 BARIUM	60.8	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.23	TRG	Y	Y	J	J

7440-43-9 CADMIUM	0.61	TRG	Y	Y		
7440-70-2 CALCIUM	11400	TRG	Y	Y		
7440-47-3 CHROMIUM	6.2	TRG	Y	Y		
7440-48-4 COBALT	2.8	TRG	Y	Y	J	J
7440-50-8 COPPER	153	TRG	Y	Y		
7439-89-6 IRON	13400	TRG	Y	Y		
7439-92-1 LEAD	58.2	TRG	Y	Y		
7439-95-4 MAGNESIUM	3630	TRG	Y	Y		
7439-96-5 MANGANESE	141	TRG	Y	Y		
7440-02-0 NICKEL	6.5	TRG	Y	Y		
7440-09-7 POTASSIUM	383	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.2	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	UJ
7440-23-5 SODIUM	595	TRG	Y	N	U	U
7440-28-0 THALLIUM	3	TRG	Y	N	U	U
7440-62-2 VANADIUM	10	TRG	Y	Y		
7440-66-6 ZINC	267	TRG	Y	Y		J
7429-90-5 ALUMINUM	3110	TRG	Y	Y		
7440-36-0 ANTIMONY	7.5	TRG	Y	N	U	U
7440-38-2 ARSENIC	7.9	TRG	Y	Y		
7440-39-3 BARIUM	58.4	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.25	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.48	TRG	Y	Y	J	J
7440-70-2 CALCIUM	5190	TRG	Y	Y		
7440-47-3 CHROMIUM	6.3	TRG	Y	Y		
7440-48-4 COBALT	2.7	TRG	Y	Y	J	J
7440-50-8 COPPER	15.2	TRG	Y	Y		
7439-89-6 IRON	7250	TRG	Y	Y		
7439-92-1 LEAD	29.3	TRG	Y	Y		
7439-95-4 MAGNESIUM	1080	TRG	Y	Y		
7439-96-5 MANGANESE	68.7	TRG	Y	Y		
7440-02-0 NICKEL	5.4	TRG	Y	Y		
7440-09-7 POTASSIUM	289	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.4	TRG	Y	N	U	U
7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	628	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.2	TRG	Y	Y		
7440-66-6 ZINC	41.6	TRG	Y	Y		J
7429-90-5 ALUMINUM	3020	TRG	Y	Y		
7440-36-0 ANTIMONY	8.2	TRG	Y	N	U	U
7440-38-2 ARSENIC	12.2	TRG	Y	Y		
7440-39-3 BARIUM	62.2	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.28	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.71	TRG	Y	Y		
7440-70-2 CALCIUM	39100	TRG	Y	Y		
7440-47-3 CHROMIUM	10.9	TRG	Y	Y		

7440-48-4 COBALT	3.3	TRG	Y	Y	J	J
7440-50-8 COPPER	24.6	TRG	Y	Y		
7439-89-6 IRON	12300	TRG	Y	Y		
7439-92-1 LEAD	51.1	TRG	Y	Y		
7439-95-4 MAGNESIUM	6610	TRG	Y	Y		
7439-96-5 MANGANESE	365	TRG	Y	Y		
7440-02-0 NICKEL	8	TRG	Y	Y		
7440-09-7 POTASSIUM	286	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.8	TRG	Y	N	U	U
7440-22-4 SILVER	1.4	TRG	Y	N	U	UJ
7440-23-5 SODIUM	687	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.4	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.8	TRG	Y	Y		
7440-66-6 ZINC	73.6	TRG	Y	Y		J
7429-90-5 ALUMINUM	3750	TRG	Y	Y		
7440-36-0 ANTIMONY	7.3	TRG	Y	N	U	U
7440-38-2 ARSENIC	9.1	TRG	Y	Y		
7440-39-3 BARIUM	74.7	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.3	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.55	TRG	Y	Y	J	J
7440-70-2 CALCIUM	7140	TRG	Y	Y		
7440-47-3 CHROMIUM	7	TRG	Y	Y		
7440-48-4 COBALT	3.7	TRG	Y	Y	J	J
7440-50-8 COPPER	16.1	TRG	Y	Y		
7439-89-6 IRON	10200	TRG	Y	Y		
7439-92-1 LEAD	55.6	TRG	Y	Y		
7439-95-4 MAGNESIUM	2040	TRG	Y	Y		
7439-96-5 MANGANESE	306	TRG	Y	Y		
7440-02-0 NICKEL	7.2	TRG	Y	Y		
7440-09-7 POTASSIUM	496	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.2	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	605	TRG	Y	N	U	U
7440-28-0 THALLIUM	3	TRG	Y	N	U	U
7440-62-2 VANADIUM	12.7	TRG	Y	Y		
7440-66-6 ZINC	66.8	TRG	Y	Y		J
7429-90-5 ALUMINUM	3050	TRG	Y	Y		
7440-36-0 ANTIMONY	7.5	TRG	Y	N	U	U
7440-38-2 ARSENIC	8.2	TRG	Y	Y		
7440-39-3 BARIUM	58.4	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.36	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.65	TRG	Y	Y		
7440-70-2 CALCIUM	12500	TRG	Y	Y		
7440-47-3 CHROMIUM	7.1	TRG	Y	Y		
7440-48-4 COBALT	2.9	TRG	Y	Y	J	J
7440-50-8 COPPER	20.7	TRG	Y	Y		
7439-89-6 IRON	10500	TRG	Y	Y		

7439-92-1 LEAD	157	TRG	Y	Y		
7439-95-4 MAGNESIUM	4220	TRG	Y	Y		
7439-96-5 MANGANESE	245	TRG	Y	Y		
7440-02-0 NICKEL	7.7	TRG	Y	Y		
7440-09-7 POTASSIUM	376	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.4	TRG	Y	N	U	U
7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	626	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	11	TRG	Y	Y		
7440-66-6 ZINC	79.2	TRG	Y	Y		J
7429-90-5 ALUMINUM	2720	TRG	Y	Y		
7440-36-0 ANTIMONY	6.8	TRG	Y	N	U	U
7440-38-2 ARSENIC	2.7	TRG	Y	Y		
7440-39-3 BARIUM	65.2	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.23	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.58	TRG	Y	Y		
7440-70-2 CALCIUM	2220	TRG	Y	Y		
7440-47-3 CHROMIUM	7.8	TRG	Y	Y		
7440-48-4 COBALT	5.7	TRG	Y	N	U	U
7440-50-8 COPPER	14.6	TRG	Y	Y		
7439-89-6 IRON	3550	TRG	Y	Y		
7439-92-1 LEAD	124	TRG	Y	Y		
7439-95-4 MAGNESIUM	689	TRG	Y	Y		
7439-96-5 MANGANESE	89.2	TRG	Y	Y		
7440-02-0 NICKEL	4	TRG	Y	Y	J	J
7440-09-7 POTASSIUM	298	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4	TRG	Y	N	U	U
7440-22-4 SILVER	1.1	TRG	Y	N	U	U
7440-23-5 SODIUM	571	TRG	Y	N	U	U
7440-28-0 THALLIUM	2.9	TRG	Y	N	U	U
7440-62-2 VANADIUM	7.9	TRG	Y	Y		
7440-66-6 ZINC	94.7	TRG	Y	Y		J
7429-90-5 ALUMINUM	4120	TRG	Y	Y		
7440-36-0 ANTIMONY	7.7	TRG	Y	N	U	U
7440-38-2 ARSENIC	3.4	TRG	Y	Y		
7440-39-3 BARIUM	55.8	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.35	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.41	TRG	Y	Y	J	J
7440-70-2 CALCIUM	23000	TRG	Y	Y		
7440-47-3 CHROMIUM	9.8	TRG	Y	Y		
7440-48-4 COBALT	3.1	TRG	Y	Y	J	J
7440-50-8 COPPER	16.4	TRG	Y	Y		
7439-89-6 IRON	5590	TRG	Y	Y		
7439-92-1 LEAD	30.7	TRG	Y	Y		
7439-95-4 MAGNESIUM	3650	TRG	Y	Y		
7439-96-5 MANGANESE	338	TRG	Y	Y		

7440-02-0 NICKEL	6.9	TRG	Y	Y		
7440-09-7 POTASSIUI	509	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.5	TRG	Y	N	U	U
7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	638	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.2	TRG	Y	N	U	U
7440-62-2 VANADIUM	11.2	TRG	Y	Y		
7440-66-6 ZINC	138	TRG	Y	Y		J
7429-90-5 ALUMINUI	4400	TRG	Y	Y		
7440-36-0 ANTIMON'	8	TRG	Y	N	U	U
7440-38-2 ARSENIC	7.8	TRG	Y	Y		
7440-39-3 BARIUM	64.8	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.33	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.56	TRG	Y	Y	J	J
7440-70-2 CALCIUM	12800	TRG	Y	Y		
7440-47-3 CHROMIUM	11	TRG	Y	Y		
7440-48-4 COBALT	5.2	TRG	Y	Y	J	J
7440-50-8 COPPER	26.3	TRG	Y	Y		
7439-89-6 IRON	10100	TRG	Y	Y		
7439-92-1 LEAD	28.9	TRG	Y	Y		
7439-95-4 MAGNESIUM	3850	TRG	Y	Y		
7439-96-5 MANGANESE	237	TRG	Y	Y		
7440-02-0 NICKEL	11.9	TRG	Y	Y		
7440-09-7 POTASSIUM	515	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.7	TRG	Y	N	U	U
7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	669	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.3	TRG	Y	N	U	U
7440-62-2 VANADIUM	16.2	TRG	Y	Y		
7440-66-6 ZINC	52.1	TRG	Y	Y		J
7429-90-5 ALUMINUM	3520	TRG	Y	Y		
7440-36-0 ANTIMON'	7.6	TRG	Y	N	U	U
7440-38-2 ARSENIC	32	TRG	Y	Y		
7440-39-3 BARIUM	244	TRG	Y	Y		
7440-41-7 BERYLLIUM	0.41	TRG	Y	Y	J	J
7440-43-9 CADMIUM	2.2	TRG	Y	Y		
7440-70-2 CALCIUM	35200	TRG	Y	Y		
7440-47-3 CHROMIUM	11.3	TRG	Y	Y		
7440-48-4 COBALT	4.7	TRG	Y	Y	J	J
7440-50-8 COPPER	92.6	TRG	Y	Y		
7439-89-6 IRON	23400	TRG	Y	Y		
7439-92-1 LEAD	164	TRG	Y	Y		
7439-95-4 MAGNESIUM	3620	TRG	Y	Y		
7439-96-5 MANGANESE	539	TRG	Y	Y		
7440-02-0 NICKEL	11.7	TRG	Y	Y		
7440-09-7 POTASSIUM	507	TRG	Y	Y	J	J
7782-49-2 SELENIUM	2.8	TRG	Y	Y	J	J

7440-22-4 SILVER	1.3	TRG	Y	N	U	U
7440-23-5 SODIUM	634	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.2	TRG	Y	N	U	U
7440-62-2 VANADIUM	15.8	TRG	Y	Y		
7440-66-6 ZINC	250	TRG	Y	Y		
7429-90-5 ALUMINUI	4040	SC	Y	Y		
7440-36-0 ANTIMON'	23.8	SC	Y	Y		
7440-38-2 ARSENIC	39.1	SC	Y	Y		
7440-39-3 BARIUM	749	SC	Y	Y		
7440-41-7 BERYLLIUM	12.6	SC	Y	Y		
7440-43-9 CADMIUM	13.5	SC	Y	Y		
7440-70-2 CALCIUM	35100	SC	Y	Y		
7440-47-3 CHROMIUI	59.7	SC	Y	Y		
7440-48-4 COBALT	135	SC	Y	Y		
7440-50-8 COPPER	137	SC	Y	Y		
7439-89-6 IRON	22700	SC	Y	Y		
7439-92-1 LEAD	178	SC	Y	Y		
7439-95-4 MAGNESIUM	3510	SC	Y	Y		
7439-96-5 MANGANE	640	SC	Y	Y		
7440-02-0 NICKEL	137	SC	Y	Y		
7440-09-7 POTASSIUI	485	SC	Y	Y	J	J
7782-49-2 SELENIUM	13.8	SC	Y	Y		
7440-22-4 SILVER	11.5	SC	Y	Y		
7440-23-5 SODIUM	634	SC	Y	N	U	U
7440-28-0 THALLIUM	11.8	SC	Y	Y		
7440-62-2 VANADIUM	139	SC	Y	Y		
7440-66-6 ZINC	518	SC	Y	Y		

ORGANIC_	REPORTIN	RESULT_U	DETECTIO	RESULT_C	FRACTION	LABNAME	PH	TEST_BATC
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		10	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1.5	MG/KG	MG/KG	M	A4 SCIENT		
N		4	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		3.5	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		10	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1.5	MG/KG	MG/KG	M	A4 SCIENT		
N		4	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		3.5	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		

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N	20	MG/KG	MG/KG	M	A4 SCIENT
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N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	10	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1.5	MG/KG	MG/KG	M	A4 SCIENT

N	4	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	3.5	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	10	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1.5	MG/KG	MG/KG	M	A4 SCIENT
N	4	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	3.5	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	10	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1.5	MG/KG	MG/KG	M	A4 SCIENT
N	4	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	3.5	MG/KG	MG/KG	M	A4 SCIENT

N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	10	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1.5	MG/KG	MG/KG	M	A4 SCIENT
N	4	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	3.5	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT

CASE

Regional Transmittal Form

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V**

DATE: 11/10/09

SUBJECT: Review of Data
Received for review on 10/23/09

FROM: Stephen L. Ostrodka, Chief (SRT-5J)
Superfund Field Services Section

TO: Data User: IDEML

We have reviewed the data by CADRE for the following case:

SITE NAME: Beck's Lake Site (IN)

CASE NUMBER: 39095 **SDG NUMBER:** ME2QX7

Number and Type of Samples: 13 soils

Sample Numbers: ME2QX7-X9, Y0-Y9

Laboratory: A4 Scientific **Hrs. for Review:** _____

Following are our findings:

CC: Howard Pham
Region 5 TOPO
Mail Code: SRT-5J

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Thirteen (13) soil samples, numbered ME2QX7-X9, Y0-Y9, were collected on October 6, 2009. The lab received the samples on October 9, 2009. The Field Chain of Custody Record for samples ME2QY7-Y9 was not signed by the sampler. All samples were analyzed for metals. All samples were analyzed using the CLP SOW ILM05.4 analysis procedures.

The inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

Form 3s (Blanks) were not included in the case for the second (dilution) run. Form 4As (ICS) appear to be mixed: Ca and Fe values on case page 42 are from run 2. It appears that some Ca and Fe values are missing but it is difficult to determine all the missing values. Serial Dilution non-detects results were not reported after dilution correction (CRQL times 5). Corrections were made on Form 8 by this reviewer.

Non-standard dilution factors were used by the Laboratory (4.6X, 1.8X, 1.4X); volumes used in preparing the dilutions are not included in the case. Dilutions seem to be calculated to produce a diluted result at approximately 80% of the linear range of the element.

Due to the elevated detection limit used by the laboratory, barium and potassium cannot be seen in the LCS. The laboratory MDL (Ba = 6.8 mg/kg, K = 155 mg/kg) is greater than the upper acceptance limit for the LCS (Ba = 2.2 mg/kg, K = 85.3 mg/kg). According to the True Value Summary Table for LCSS(0405), acceptance limits for barium, potassium and sodium are advisory only. CLP does not make allowances for advisory limits. Since the laboratory cannot see the LCS values for these elements, validation of the digestion is not possible and all detects will be estimated "J" and non-detects will be estimated "UJ".

Note: All barium and potassium results and sodium results for ME2QY5, ME2QY7 and ME2QY9 are flagged "J+" by CADRE. This appears to be because CADRE used the non-detect values of 20, 500 and 500 mg/kg respectively for the solid LCS as detects.

1. HOLDING TIME:

No defects were found.

2. CALIBRATIONS:

No defects were found for the calibration or the CRQL standards.

3. BLANKS:

No defects were found for the preparation blank or ICB/CCBs.

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

The following inorganic samples are associated with a solid laboratory control sample (LCS) with found amounts below the method detection limit (MDL). The LCS upper control limit is less than the laboratory MDL.

Hits are qualified "J" and non-detects are qualified "UJ".

Barium

ME2QX7, ME2QX8, ME2QX9, ME2QY0, ME2QY1, ME2QY2, ME2QY3,
ME2QY4, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

Potassium

ME2QX7, ME2QX8, ME2QX9, ME2QY0, ME2QY1, ME2QY2, ME2QY3,
ME2QY4, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

No defects were found for the matrix spike.

5. LABORATORY AND FIELD DUPLICATE:

No defects were found for matrix spike or laboratory control samples.

6. ICP ANALYSIS:

The following results are affected by an interference check "A" sample (ICSA) for which false negative concentration values greater than the absolute value of the MDL were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA.

Hits less than 10 times the absolute value of the ICSA are qualified "J-", non-detects are qualified "UJ". Hits greater than 10 times the ICSA are not qualified.

Silver

ME2QX7, ME2QY2, ME2QY4, ME2QY5, ME2QY6, ME2QY7, ME2QY8,
ME2QY9

The following inorganic samples are associated with negative sample results whose absolute values are greater than the CRQL, indicating interference.

Non-detects are qualified "R".

Silver
ME2QY7, ME2QY8, ME2QY9

No defects were found for the serial dilution.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).

Results are qualified "J".

Antimony
ME2QY4, ME2QY5, ME2QY8

Beryllium
ME2QX7, ME2QX8, ME2QX9, ME2QY0, ME2QY2, ME2QY3, ME2QY4

Cadmium
ME2QX8, ME2QY0, ME2QY3, ME2QY6

Cobalt
ME2QX7, ME2QX8, ME2QY0, ME2QY2, ME2QY3, ME2QY4, ME2QY6

Nickel
ME2QY1, ME2QY6

Potassium
ME2QX7, ME2QX8, ME2QX9, ME2QY1, ME2QY2, ME2QY3, ME2QY4,
ME2QY5, ME2QY7, ME2QY8, ME2QY9

Selenium
ME2QX8, ME2QY2, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

Sodium
ME2QY5, ME2QY7, ME2QY9

All data, except those qualified above, are acceptable.

CADRE ILM05.4 Data Qualifier Sheet

<u>Qualifiers</u>	<u>Data Qualifier Definitions</u>
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- | | |
|----|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. |
| J | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. |
| J+ | The result is an estimated quantity, but the result may be biased high. |
| J- | The result is an estimated quantity, but the result may be biased low. |
| R | The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample. |
| UJ | The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise. |

Analytical Results (Qualified Data)

Page 1 of 3

Case #: 39095

SDG : ME2QX7

Site :

BECK'S LAKE SITE

Lab. :

A4

Reviewer :

S. CONNET

Date :

11/10/2009

Number of Soil Samples : 13

Number of Water Samples : 0

Sample Number :	ME2QX7	ME2QX8	ME2QX9	ME2QY0	ME2QY1					
Sampling Location :	S34	S35	S36	S37	S38					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	10/6/2009	10/6/2009	10/6/2009	10/6/2009	10/6/2009					
Time Sampled :										
%Solids :	81.6	63.6	82.8	79.4	79.9					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3640		4820		3070		5390		2020	
ANTIMONY	7.3	U	9.3	U	7.0	U	7.5	U	7.4	U
ARSENIC	12.9		9.7		9.7		7.9		12.3	
BARIUM	62.6	J	73.4	J	53.0	J	112	J	40.0	J
BERYLLIUM	0.27	J	0.31	J	0.24	J	0.31	J	0.62	U
CADMIUM	0.79		0.61	J	1.2		0.50	J	0.78	
CALCIUM	10400		26500		4140		2480		6500	
CHROMIUM	7.6		8.5		68.5		12.0		28.4	
COBALT	3.2	J	3.7	J	5.9	U	4.6	J	6.2	U
COPPER	37.2		16.2		16.7		15.1		16.7	
IRON	11600		9010		4490		8210		8690	
LEAD	48.5		29.3		47.3		20.4		32.1	
MAGNESIUM	3440		9160		1230		1180		2560	
MANGANESE	151		185		111		616		44.5	
NICKEL	8.9		10.3		5.1		6.9		4.4	J
POTASSIUM	584	J	370	J	229	J	686	J	410	J
SELENIUM	4.2	U	2.2	J	4.1	U	4.4	U	4.3	U
SILVER	1.2	UJ	1.6	U	1.2	U	1.2	U	1.2	U
SODIUM	607	U	778	U	586	U	623	U	620	U
THALLIUM	3.0	U	3.9	U	2.9	U	3.1	U	3.1	U
VANADIUM	13.5		14.6		7.6		13.1		10.4	
ZINC	121		44.9		77.2		61.3		46.1	

Analytical Results (Qualified Data)

Page 2 of 3

Case #: 39095 SDG : ME2QX7
 Site : BECK'S LAKE SITE
 Lab. : A4
 Reviewer : S. CONNET
 Date : 11/10/2009

Sample Number :	ME2QY2	ME2QY3	ME2QY4	ME2QY5	ME2QY6					
Sampling Location :	S39	S40	S51	S52	S56					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	10/6/2009	10/6/2009	10/6/2009	10/6/2009	10/6/2009					
Time Sampled :										
%Solids :	72.2	80.1	88.3	87.8	76.8					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4000		2610		6700		5770		875	
ANTIMONY	8.2	U	7.5	U	2.9	J	5.6	J	7.8	U
ARSENIC	25.0		12.3		7.0		12.0		24.5	
BARIUM	91.6	J	58.1	J	303	J	502	J	244	J
BERYLLIUM	0.29	J	0.20	J	0.48	J	0.65		0.65	U
CADMIUM	1.0		0.50	J	149		6.4		0.41	J
CALCIUM	29000		14700		15800		17000		263000	
CHROMIUM	8.1		6.6		23.3		36.3		2.7	
COBALT	3.4	J	2.9	J	4.3	J	8.6		2.7	J
COPPER	26.2		26.9		736		987		5.7	
IRON	17100		9940		27700		35300		22900	
LEAD	45.0		30.4		1860		1030		15.1	
MAGNESIUM	4300		4660		2620		3440		4790	
MANGANESE	213		140		288		756		726	
NICKEL	15.3		6.5		12.6		53.9		4.9	J
POTASSIUM	470	J	383	J	387	J	397	J	651	UJ
SELENIUM	2.0	J	4.4	U	3.9	U	2.7	J	2.0	J
SILVER	1.4	UJ	1.2	U	1.1	UJ	1.1	UJ	1.3	UJ
SODIUM	686	U	624	U	561	U	234	J	651	U
THALLIUM	3.4	U	3.1	U	2.8	U	2.8	U	3.3	U
VANADIUM	14.0		10.6		15.6		17.3		7.5	
ZINC	84.6		63.9		657		2130		24.4	

Analytical Results (Qualified Data)

Page 3 of 3

Case #: 39095 SDG : ME2QX7
Site : BECK'S LAKE SITE
Lab. : A4
Reviewer : S. CONNET
Date : 11/10/2009

Sample Number :	ME2QY7	ME2QY8	ME2QY9							
Sampling Location :	S53	S54	S55							
Matrix :	Soil	Soil	Soil							
Units :	mg/Kg	mg/Kg	mg/Kg							
Date Sampled :	10/6/2009	10/6/2009	10/6/2009							
Time Sampled :										
%Solids :	64.0	84.5	75.0							
Dilution Factor :	1.0	1.0	1.0							
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7680		5340		14300					
ANTIMONY	19.7		2.1	J	8.0	U				
ARSENIC	21.5		11.9		18.4					
BARIUM	1020	J	565	J	673	J				
BERYLLIUM	0.84		0.69		1.3					
CADMIUM	19.6		5.2		6.6					
CALCIUM	17000		12900		11400					
CHROMIUM	59.6		53.0		39.7					
COBALT	16.5		12.2		10.2					
COPPER	567		169		271					
IRON	115000		49000		76100					
LEAD	2390		730		1010					
MAGNESIUM	2090		2860		1450					
MANGANESE	615		481		585					
NICKEL	206		38.7		55.1					
POTASSIUM	457	J	547	J	426	J				
SELENIUM	5.2	J	2.1	J	4.3	J				
SILVER	1.6	R	1.2	R	1.3	R				
SODIUM	331	J	580	U	227	J				
THALLIUM	3.9	U	2.9	U	3.3	U				
VANADIUM	26.1		23.0		27.3					
ZINC	1960		853		1040					

S34	ME2QX7S S	LSF	LAB	ME2QX7	10/06/200 12:05
S34	ME2QX7S S	LSF	LAB	ME2QX7	10/06/200 12:05

10/09/200

10/09/200

N	C200.7	10/20/200 20:46
N	C200.7	10/20/200 20:46

LB	NA	1 HS2	10/19/200
LB	NA	1 HS2	10/19/200

A4	QUANT	0010981-C	18.4	1.01 G	100 ML
A4	QUANT	0010981-C	18.4	1.01 G	100 ML

CAS_RN	CHEMICAL	RESULT_V	RESULT_EF	RESULT_TV	REPORTAB	Detect_FI	LAB_QUAL	VALIDATO
7429-90-5	ALUMINUI	3640	TRG	Y	Y			
7440-36-0	ANTIMON'	7.3	TRG	Y	N	U	U	
7440-38-2	ARSENIC	12.9	TRG	Y	Y			
7440-39-3	BARIUM	62.6	TRG	Y	Y		J	
7440-41-7	BERYLLIUN	0.27	TRG	Y	Y	J	J	
7440-43-9	CADMIUM	0.79	TRG	Y	Y			
7440-70-2	CALCIUM	10400	TRG	Y	Y			
7440-47-3	CHROMIUI	7.6	TRG	Y	Y			
7440-48-4	COBALT	3.2	TRG	Y	Y	J	J	
7440-50-8	COPPER	37.2	TRG	Y	Y			
7439-89-6	IRON	11600	TRG	Y	Y			
7439-92-1	LEAD	48.5	TRG	Y	Y			
7439-95-4	MAGNESIU	3440	TRG	Y	Y			
7439-96-5	MANGANE	151	TRG	Y	Y			
7440-02-0	NICKEL	8.9	TRG	Y	Y			
7440-09-7	POTASSIUI	584	TRG	Y	Y	J	J	
7782-49-2	SELENIUM	4.2	TRG	Y	N	U	U	
7440-22-4	SILVER	1.2	TRG	Y	N	U	UJ	
7440-23-5	SODIUM	607	TRG	Y	N	U	U	
7440-28-0	THALLIUM	3	TRG	Y	N	U	U	
7440-62-2	VANADIUM	13.5	TRG	Y	Y			
7440-66-6	ZINC	121	TRG	Y	Y			
7429-90-5	ALUMINUI	4820	TRG	Y	Y			
7440-36-0	ANTIMON'	9.3	TRG	Y	N	U	U	
7440-38-2	ARSENIC	9.7	TRG	Y	Y			
7440-39-3	BARIUM	73.4	TRG	Y	Y		J	
7440-41-7	BERYLLIUN	0.31	TRG	Y	Y	J	J	
7440-43-9	CADMIUM	0.61	TRG	Y	Y	J	J	
7440-70-2	CALCIUM	26500	TRG	Y	Y			
7440-47-3	CHROMIUI	8.5	TRG	Y	Y			
7440-48-4	COBALT	3.7	TRG	Y	Y	J	J	
7440-50-8	COPPER	16.2	TRG	Y	Y			
7439-89-6	IRON	9010	TRG	Y	Y			
7439-92-1	LEAD	29.3	TRG	Y	Y			
7439-95-4	MAGNESIU	9160	TRG	Y	Y			
7439-96-5	MANGANE	185	TRG	Y	Y			
7440-02-0	NICKEL	10.3	TRG	Y	Y			
7440-09-7	POTASSIUI	370	TRG	Y	Y	J	J	
7782-49-2	SELENIUM	2.2	TRG	Y	Y	J	J	
7440-22-4	SILVER	1.6	TRG	Y	N	U	U	
7440-23-5	SODIUM	778	TRG	Y	N	U	U	
7440-28-0	THALLIUM	3.9	TRG	Y	N	U	U	
7440-62-2	VANADIUM	14.6	TRG	Y	Y			
7440-66-6	ZINC	44.9	TRG	Y	Y			
7429-90-5	ALUMINUI	3070	TRG	Y	Y			
7440-36-0	ANTIMON'	7	TRG	Y	N	U	U	

7440-38-2 ARSENIC	9.7	TRG	Y	Y		
7440-39-3 BARIUM	53	TRG	Y	Y	J	
7440-41-7 BERYLLIUM	0.24	TRG	Y	Y	J	J
7440-43-9 CADMIUM	1.2	TRG	Y	Y		
7440-70-2 CALCIUM	4140	TRG	Y	Y		
7440-47-3 CHROMIUM	68.5	TRG	Y	Y		
7440-48-4 COBALT	5.9	TRG	Y	N	U	U
7440-50-8 COPPER	16.7	TRG	Y	Y		
7439-89-6 IRON	4490	TRG	Y	Y		
7439-92-1 LEAD	47.3	TRG	Y	Y		
7439-95-4 MAGNESIUM	1230	TRG	Y	Y		
7439-96-5 MANGANESE	111	TRG	Y	Y		
7440-02-0 NICKEL	5.1	TRG	Y	Y		
7440-09-7 POTASSIUM	229	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.1	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	586	TRG	Y	N	U	U
7440-28-0 THALLIUM	2.9	TRG	Y	N	U	U
7440-62-2 VANADIUM	7.6	TRG	Y	Y		
7440-66-6 ZINC	77.2	TRG	Y	Y		
7429-90-5 ALUMINUM	5390	TRG	Y	Y		
7440-36-0 ANTIMONY	7.5	TRG	Y	N	U	U
7440-38-2 ARSENIC	7.9	TRG	Y	Y		
7440-39-3 BARIUM	112	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.31	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.5	TRG	Y	Y	J	J
7440-70-2 CALCIUM	2480	TRG	Y	Y		
7440-47-3 CHROMIUM	12	TRG	Y	Y		
7440-48-4 COBALT	4.6	TRG	Y	Y	J	J
7440-50-8 COPPER	15.1	TRG	Y	Y		
7439-89-6 IRON	8210	TRG	Y	Y		
7439-92-1 LEAD	20.4	TRG	Y	Y		
7439-95-4 MAGNESIUM	1180	TRG	Y	Y		
7439-96-5 MANGANESE	616	TRG	Y	Y		
7440-02-0 NICKEL	6.9	TRG	Y	Y		
7440-09-7 POTASSIUM	686	TRG	Y	Y		J
7782-49-2 SELENIUM	4.4	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	623	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	13.1	TRG	Y	Y		
7440-66-6 ZINC	61.3	TRG	Y	Y		
7429-90-5 ALUMINUM	2020	TRG	Y	Y		
7440-36-0 ANTIMONY	7.4	TRG	Y	N	U	U
7440-38-2 ARSENIC	12.3	TRG	Y	Y		
7440-39-3 BARIUM	40	TRG	Y	Y	J	
7440-41-7 BERYLLIUM	0.62	TRG	Y	N	U	U

7440-43-9 CADMIUM	0.78	TRG	Y	Y		
7440-70-2 CALCIUM	6500	TRG	Y	Y		
7440-47-3 CHROMIUI	28.4	TRG	Y	Y		
7440-48-4 COBALT	6.2	TRG	Y	N	U	U
7440-50-8 COPPER	16.7	TRG	Y	Y		
7439-89-6 IRON	8690	TRG	Y	Y		
7439-92-1 LEAD	32.1	TRG	Y	Y		
7439-95-4 MAGNESIL	2560	TRG	Y	Y		
7439-96-5 MANGANE	44.5	TRG	Y	Y		
7440-02-0 NICKEL	4.4	TRG	Y	Y	J	J
7440-09-7 POTASSIUI	410	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.3	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	620	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.4	TRG	Y	Y		
7440-66-6 ZINC	46.1	TRG	Y	Y		
7429-90-5 ALUMINUI	4000	TRG	Y	Y		
7440-36-0 ANTIMON'	8.2	TRG	Y	N	U	U
7440-38-2 ARSENIC	25	TRG	Y	Y		
7440-39-3 BARIUM	91.6	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.29	TRG	Y	Y	J	J
7440-43-9 CADMIUM	1	TRG	Y	Y		
7440-70-2 CALCIUM	29000	TRG	Y	Y		
7440-47-3 CHROMIUI	8.1	TRG	Y	Y		
7440-48-4 COBALT	3.4	TRG	Y	Y	J	J
7440-50-8 COPPER	26.2	TRG	Y	Y		
7439-89-6 IRON	17100	TRG	Y	Y		
7439-92-1 LEAD	45	TRG	Y	Y		
7439-95-4 MAGNESIL	4300	TRG	Y	Y		
7439-96-5 MANGANE	213	TRG	Y	Y		
7440-02-0 NICKEL	15.3	TRG	Y	Y		
7440-09-7 POTASSIUI	470	TRG	Y	Y	J	J
7782-49-2 SELENIUM	2	TRG	Y	Y	J	J
7440-22-4 SILVER	1.4	TRG	Y	N	U	UJ
7440-23-5 SODIUM	686	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.4	TRG	Y	N	U	U
7440-62-2 VANADIUM	14	TRG	Y	Y		
7440-66-6 ZINC	84.6	TRG	Y	Y		
7429-90-5 ALUMINUI	2610	TRG	Y	Y		
7440-36-0 ANTIMON'	7.5	TRG	Y	N	U	U
7440-38-2 ARSENIC	12.3	TRG	Y	Y		
7440-39-3 BARIUM	58.1	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.2	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.5	TRG	Y	Y	J	J
7440-70-2 CALCIUM	14700	TRG	Y	Y		
7440-47-3 CHROMIUI	6.6	TRG	Y	Y		

7440-48-4 COBALT	2.9	TRG	Y	Y	J	J
7440-50-8 COPPER	26.9	TRG	Y	Y		
7439-89-6 IRON	9940	TRG	Y	Y		
7439-92-1 LEAD	30.4	TRG	Y	Y		
7439-95-4 MAGNESIUM	4660	TRG	Y	Y		
7439-96-5 MANGANESE	140	TRG	Y	Y		
7440-02-0 NICKEL	6.5	TRG	Y	Y		
7440-09-7 POTASSIUM	383	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.4	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	624	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.1	TRG	Y	N	U	U
7440-62-2 VANADIUM	10.6	TRG	Y	Y		
7440-66-6 ZINC	63.9	TRG	Y	Y		
7429-90-5 ALUMINUM	6700	TRG	Y	Y		
7440-36-0 ANTIMONY	2.9	TRG	Y	Y	J	J
7440-38-2 ARSENIC	7	TRG	Y	Y		
7440-39-3 BARIUM	303	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.48	TRG	Y	Y	J	J
7440-43-9 CADMIUM	149	TRG	Y	Y		
7440-70-2 CALCIUM	15800	TRG	Y	Y		
7440-47-3 CHROMIUM	23.3	TRG	Y	Y		
7440-48-4 COBALT	4.3	TRG	Y	Y	J	J
7440-50-8 COPPER	736	TRG	Y	Y		
7439-89-6 IRON	27700	TRG	Y	Y		
7439-92-1 LEAD	1860	TRG	Y	Y		
7439-95-4 MAGNESIUM	2620	TRG	Y	Y		
7439-96-5 MANGANESE	288	TRG	Y	Y		
7440-02-0 NICKEL	12.6	TRG	Y	Y		
7440-09-7 POTASSIUM	387	TRG	Y	Y	J	J
7782-49-2 SELENIUM	3.9	TRG	Y	N	U	U
7440-22-4 SILVER	1.1	TRG	Y	N	U	UJ
7440-23-5 SODIUM	561	TRG	Y	N	U	U
7440-28-0 THALLIUM	2.8	TRG	Y	N	U	U
7440-62-2 VANADIUM	15.6	TRG	Y	Y		
7440-66-6 ZINC	657	TRG	Y	Y		
7429-90-5 ALUMINUM	5770	TRG	Y	Y		
7440-36-0 ANTIMONY	5.6	TRG	Y	Y	J	J
7440-38-2 ARSENIC	12	TRG	Y	Y		
7440-39-3 BARIUM	502	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.65	TRG	Y	Y		
7440-43-9 CADMIUM	6.4	TRG	Y	Y		
7440-70-2 CALCIUM	17000	TRG	Y	Y		
7440-47-3 CHROMIUM	36.3	TRG	Y	Y		
7440-48-4 COBALT	8.6	TRG	Y	Y		
7440-50-8 COPPER	987	TRG	Y	Y		
7439-89-6 IRON	35300	TRG	Y	Y		

7439-92-1 LEAD	1030	TRG	Y	Y		
7439-95-4 MAGNESIUM	3440	TRG	Y	Y		
7439-96-5 MANGANESE	756	TRG	Y	Y		
7440-02-0 NICKEL	53.9	TRG	Y	Y		
7440-09-7 POTASSIUM	397	TRG	Y	Y	J	J
7782-49-2 SELENIUM	2.7	TRG	Y	Y	J	J
7440-22-4 SILVER	1.1	TRG	Y	N	U	UJ
7440-23-5 SODIUM	234	TRG	Y	Y	J	J
7440-28-0 THALLIUM	2.8	TRG	Y	N	U	U
7440-62-2 VANADIUM	17.3	TRG	Y	Y		
7440-66-6 ZINC	2130	TRG	Y	Y		
7429-90-5 ALUMINUM	875	TRG	Y	Y		
7440-36-0 ANTIMONY	7.8	TRG	Y	N	U	U
7440-38-2 ARSENIC	24.5	TRG	Y	Y		
7440-39-3 BARIUM	244	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.65	TRG	Y	N	U	U
7440-43-9 CADMIUM	0.41	TRG	Y	Y	J	J
7440-70-2 CALCIUM	263000	TRG	Y	Y		
7440-47-3 CHROMIUM	2.7	TRG	Y	Y		
7440-48-4 COBALT	2.7	TRG	Y	Y	J	J
7440-50-8 COPPER	5.7	TRG	Y	Y		
7439-89-6 IRON	22900	TRG	Y	Y		
7439-92-1 LEAD	15.1	TRG	Y	Y		
7439-95-4 MAGNESIUM	4790	TRG	Y	Y		
7439-96-5 MANGANESE	726	TRG	Y	Y		
7440-02-0 NICKEL	4.9	TRG	Y	Y	J	J
7440-09-7 POTASSIUM	651	TRG	Y	N	U	UJ
7782-49-2 SELENIUM	2	TRG	Y	Y	J	J
7440-22-4 SILVER	1.3	TRG	Y	N	U	UJ
7440-23-5 SODIUM	651	TRG	Y	N	U	U
7440-28-0 THALLIUM	3.3	TRG	Y	N	U	U
7440-62-2 VANADIUM	7.5	TRG	Y	Y		
7440-66-6 ZINC	24.4	TRG	Y	Y		
7429-90-5 ALUMINUM	7680	TRG	Y	Y		
7440-36-0 ANTIMONY	19.7	TRG	Y	Y		
7440-38-2 ARSENIC	21.5	TRG	Y	Y		
7440-39-3 BARIUM	1020	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.84	TRG	Y	Y		
7440-43-9 CADMIUM	19.6	TRG	Y	Y		
7440-70-2 CALCIUM	17000	TRG	Y	Y		
7440-47-3 CHROMIUM	59.6	TRG	Y	Y		
7440-48-4 COBALT	16.5	TRG	Y	Y		
7440-50-8 COPPER	567	TRG	Y	Y		
7439-89-6 IRON	115000	TRG	Y	Y		
7439-92-1 LEAD	2390	TRG	Y	Y		
7439-95-4 MAGNESIUM	2090	TRG	Y	Y		
7439-96-5 MANGANESE	615	TRG	Y	Y		

7440-02-0 NICKEL	206	TRG	Y	Y		
7440-09-7 POTASSIUI	457	TRG	Y	Y	J	J
7782-49-2 SELENIUM	5.2	TRG	Y	Y	J	J
7440-22-4 SILVER	1.6	TRG	Y	N	U	R
7440-23-5 SODIUM	331	TRG	Y	Y	J	J
7440-28-0 THALLIUM	3.9	TRG	Y	N	U	U
7440-62-2 VANADIUM	26.1	TRG	Y	Y		
7440-66-6 ZINC	1960	TRG	Y	Y		
7429-90-5 ALUMINUI	5340	TRG	Y	Y		
7440-36-0 ANTIMON'	2.1	TRG	Y	Y	J	J
7440-38-2 ARSENIC	11.9	TRG	Y	Y		
7440-39-3 BARIUM	565	TRG	Y	Y		J
7440-41-7 BERYLLIUM	0.69	TRG	Y	Y		
7440-43-9 CADMIUM	5.2	TRG	Y	Y		
7440-70-2 CALCIUM	12900	TRG	Y	Y		
7440-47-3 CHROMIUM	53	TRG	Y	Y		
7440-48-4 COBALT	12.2	TRG	Y	Y		
7440-50-8 COPPER	169	TRG	Y	Y		
7439-89-6 IRON	49000	TRG	Y	Y		
7439-92-1 LEAD	730	TRG	Y	Y		
7439-95-4 MAGNESIUM	2860	TRG	Y	Y		
7439-96-5 MANGANESE	481	TRG	Y	Y		
7440-02-0 NICKEL	38.7	TRG	Y	Y		
7440-09-7 POTASSIUM	547	TRG	Y	Y	J	J
7782-49-2 SELENIUM	2.1	TRG	Y	Y	J	J
7440-22-4 SILVER	1.2	TRG	Y	N	U	R
7440-23-5 SODIUM	580	TRG	Y	N	U	U
7440-28-0 THALLIUM	2.9	TRG	Y	N	U	U
7440-62-2 VANADIUM	23	TRG	Y	Y		
7440-66-6 ZINC	853	TRG	Y	Y		
7429-90-5 ALUMINUM	14300	TRG	Y	Y		
7440-36-0 ANTIMON'	8	TRG	Y	N	U	U
7440-38-2 ARSENIC	18.4	TRG	Y	Y		
7440-39-3 BARIUM	673	TRG	Y	Y		J
7440-41-7 BERYLLIUM	1.3	TRG	Y	Y		
7440-43-9 CADMIUM	6.6	TRG	Y	Y		
7440-70-2 CALCIUM	11400	TRG	Y	Y		
7440-47-3 CHROMIUM	39.7	TRG	Y	Y		
7440-48-4 COBALT	10.2	TRG	Y	Y		
7440-50-8 COPPER	271	TRG	Y	Y		
7439-89-6 IRON	76100	TRG	Y	Y		
7439-92-1 LEAD	1010	TRG	Y	Y		
7439-95-4 MAGNESIUM	1450	TRG	Y	Y		
7439-96-5 MANGANESE	585	TRG	Y	Y		
7440-02-0 NICKEL	55.1	TRG	Y	Y		
7440-09-7 POTASSIUM	426	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.3	TRG	Y	Y	J	J

7440-22-4 SILVER	1.3	TRG	Y	N	U	R
7440-23-5 SODIUM	227	TRG	Y	Y	J	J
7440-28-0 THALLIUM	3.3	TRG	Y	N	U	U
7440-62-2 VANADIUM	27.3	TRG	Y	Y		
7440-66-6 ZINC	1040	TRG	Y	Y		
7429-90-5 ALUMINUI	3640	TRG	Y	Y		
7440-36-0 ANTIMON'	7.3	TRG	Y	N	U	U
7440-38-2 ARSENIC	12.6	TRG	Y	Y		
7440-39-3 BARIUM	62.2	TRG	Y	Y		
7440-41-7 BERYLLIUM	0.26	TRG	Y	Y	J	J
7440-43-9 CADMIUM	0.81	TRG	Y	Y		J
7440-70-2 CALCIUM	10300	TRG	Y	Y		
7440-47-3 CHROMIUI	7.5	TRG	Y	Y		
7440-48-4 COBALT	3.2	TRG	Y	Y	J	J
7440-50-8 COPPER	36.3	TRG	Y	Y		
7439-89-6 IRON	11500	TRG	Y	Y		
7439-92-1 LEAD	47.3	TRG	Y	Y		
7439-95-4 MAGNESIUM	3370	TRG	Y	Y		
7439-96-5 MANGANE	152	TRG	Y	Y		
7440-02-0 NICKEL	8.6	TRG	Y	Y		J
7440-09-7 POTASSIUI	579	TRG	Y	Y	J	J
7782-49-2 SELENIUM	4.2	TRG	Y	N	U	U
7440-22-4 SILVER	1.2	TRG	Y	N	U	U
7440-23-5 SODIUM	607	TRG	Y	N	U	U
7440-28-0 THALLIUM	3	TRG	Y	N	U	U
7440-62-2 VANADIUM	13.1	TRG	Y	Y		
7440-66-6 ZINC	118	TRG	Y	Y		
7429-90-5 ALUMINUI	4110	SC	Y	Y		
7440-36-0 ANTIMON'	21.6	SC	Y	Y		
7440-38-2 ARSENIC	20.4	SC	Y	Y		
7440-39-3 BARIUM	531	SC	Y	Y		
7440-41-7 BERYLLIUM	11.5	SC	Y	Y		
7440-43-9 CADMIUM	11.2	SC	Y	Y		
7440-70-2 CALCIUM	10100	SC	Y	Y		
7440-47-3 CHROMIUI	52.6	SC	Y	Y		
7440-48-4 COBALT	123	SC	Y	Y		
7440-50-8 COPPER	93.7	SC	Y	Y		
7439-89-6 IRON	11200	SC	Y	Y		
7439-92-1 LEAD	52.4	SC	Y	Y		
7439-95-4 MAGNESIUM	3100	SC	Y	Y		
7439-96-5 MANGANE	262	SC	Y	Y		
7440-02-0 NICKEL	124	SC	Y	Y		
7440-09-7 POTASSIUI	592	SC	Y	Y	J	J
7782-49-2 SELENIUM	11.9	SC	Y	Y		
7440-22-4 SILVER	10.7	SC	Y	Y		
7440-23-5 SODIUM	607	SC	Y	N	U	U
7440-28-0 THALLIUM	10.9	SC	Y	Y		

7440-62-2 VANADIUM	125	SC	Y	Y
7440-66-6 ZINC	227	SC	Y	Y

ORGANIC_	REPORTIN	RESULT_U	DETECTIO	RESULT_C	FRACTION	LABNAME	PH	TEST_BATC
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		10	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1.5	MG/KG	MG/KG	M	A4 SCIENT		
N		4	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		3.5	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		0.5	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		10	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		1.5	MG/KG	MG/KG	M	A4 SCIENT		
N		4	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		3.5	MG/KG	MG/KG	M	A4 SCIENT		
N		1	MG/KG	MG/KG	M	A4 SCIENT		
N		500	MG/KG	MG/KG	M	A4 SCIENT		
N		2.5	MG/KG	MG/KG	M	A4 SCIENT		
N		5	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		
N		20	MG/KG	MG/KG	M	A4 SCIENT		
N		6	MG/KG	MG/KG	M	A4 SCIENT		

N	1	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	10	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1.5	MG/KG	MG/KG	M	A4 SCIENT
N	4	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	3.5	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	10	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1.5	MG/KG	MG/KG	M	A4 SCIENT
N	4	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	3.5	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	2.5	MG/KG	MG/KG	M	A4 SCIENT
N	5	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	6	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
N	20	MG/KG	MG/KG	M	A4 SCIENT
N	0.5	MG/KG	MG/KG	M	A4 SCIENT

N	0.5	MG/KG	MG/KG	M	A4 SCIENT
N	500	MG/KG	MG/KG	M	A4 SCIENT
N	1	MG/KG	MG/KG	M	A4 SCIENT
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CASE

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APPENDIX E

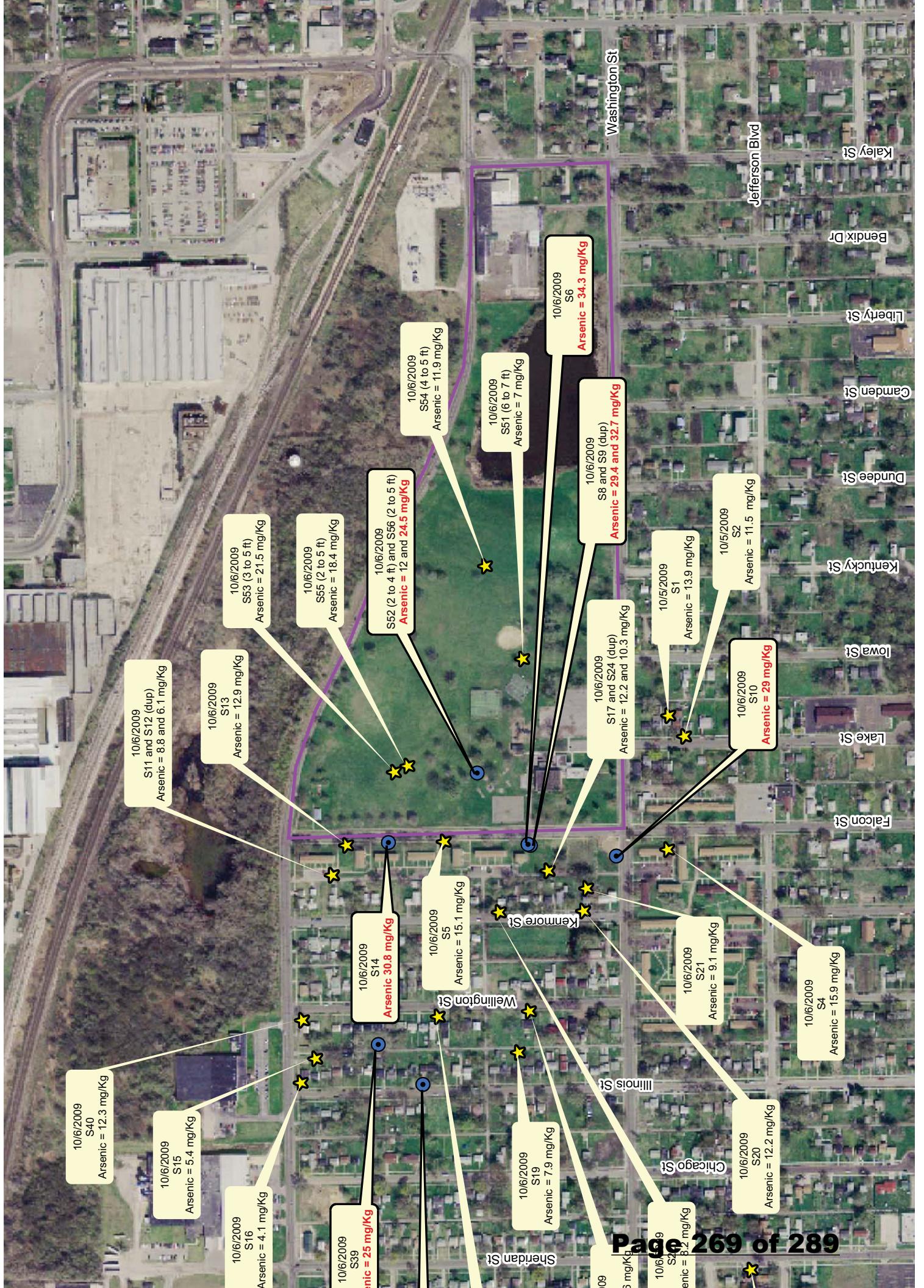
APPENDIX A

APPENDIX B

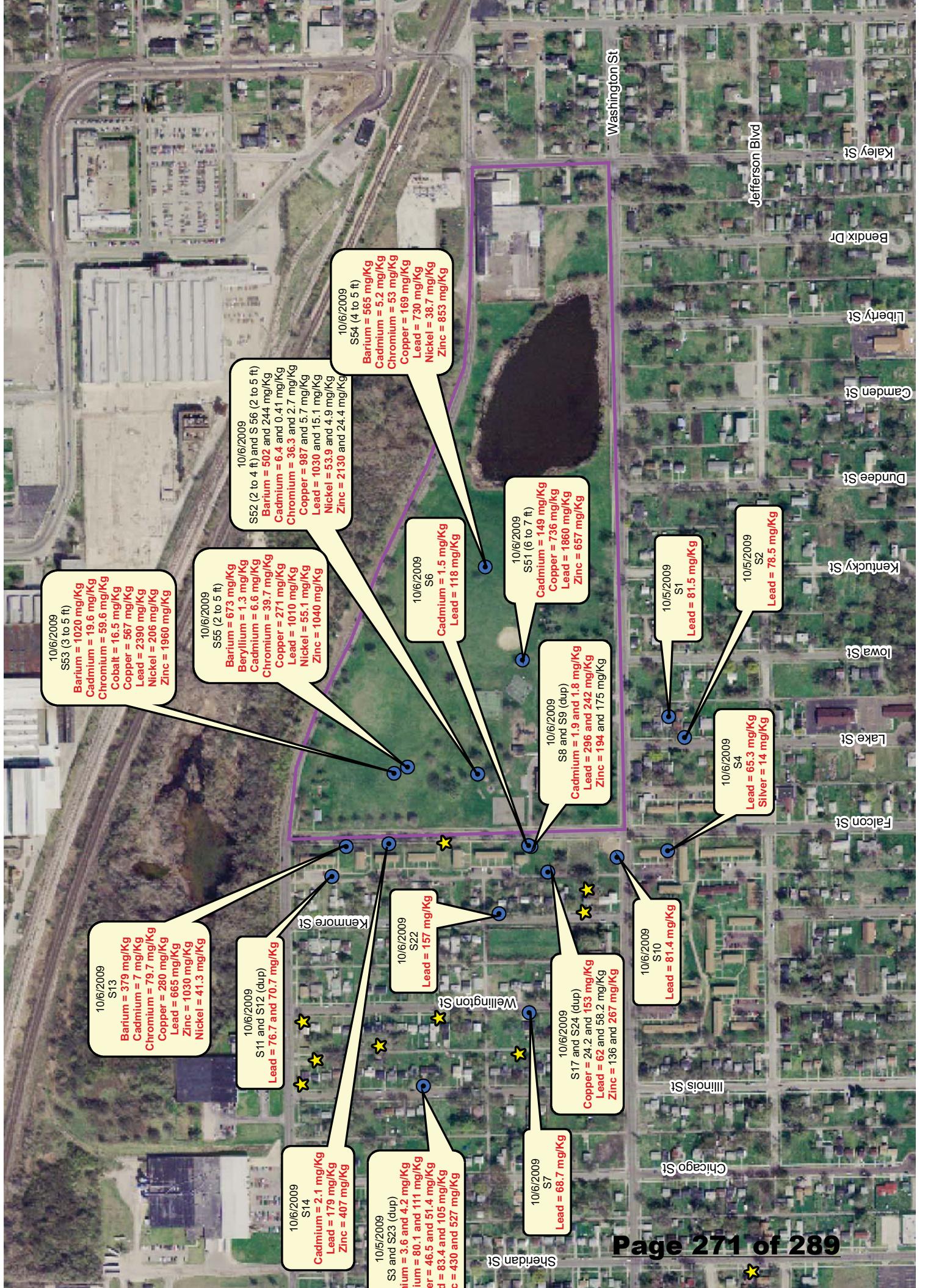
APPENDIX C



APPENDIX F



APPENDIX G



APPENDIX H

BFS-3-9

-13-38





6-14-51

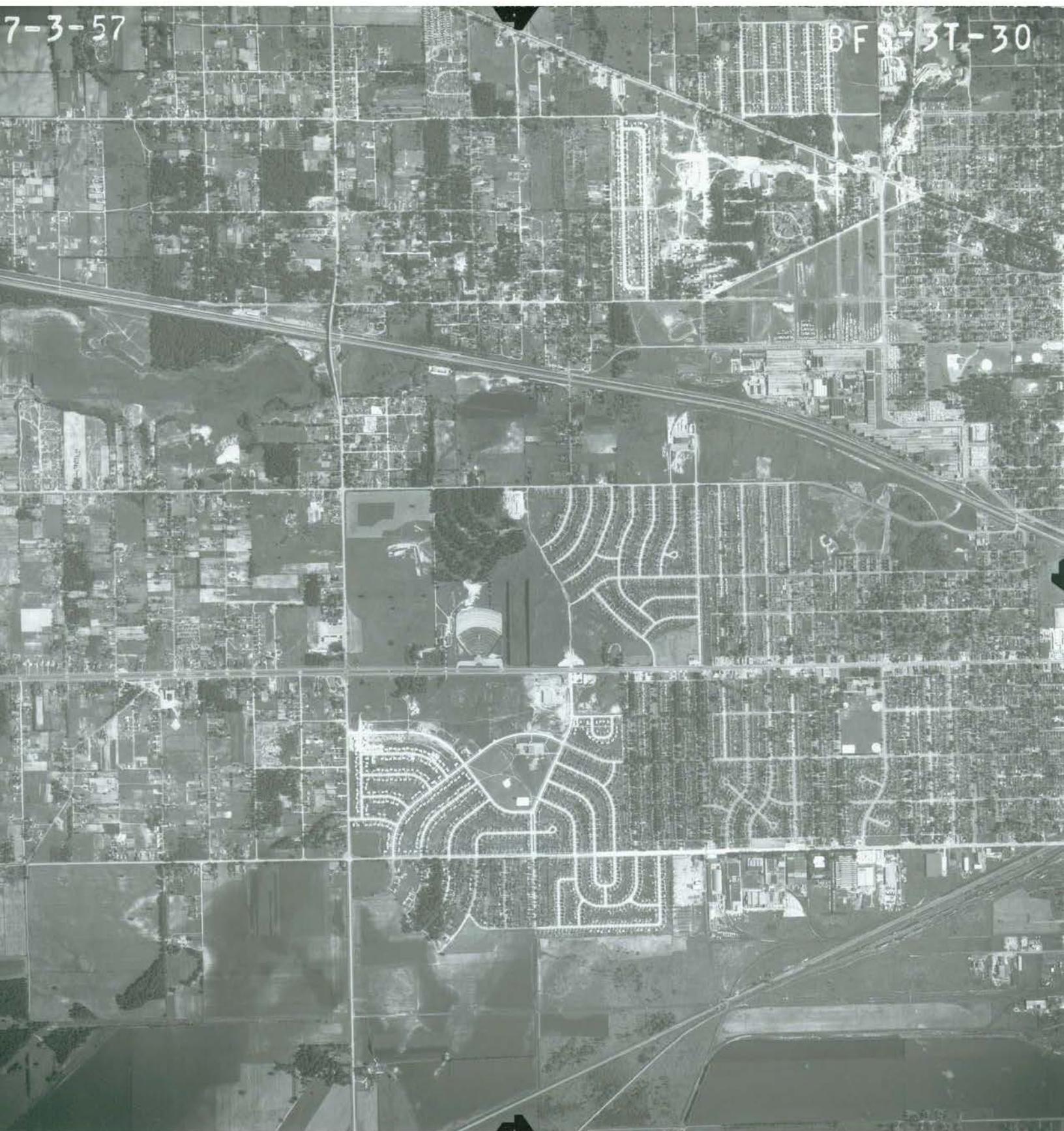
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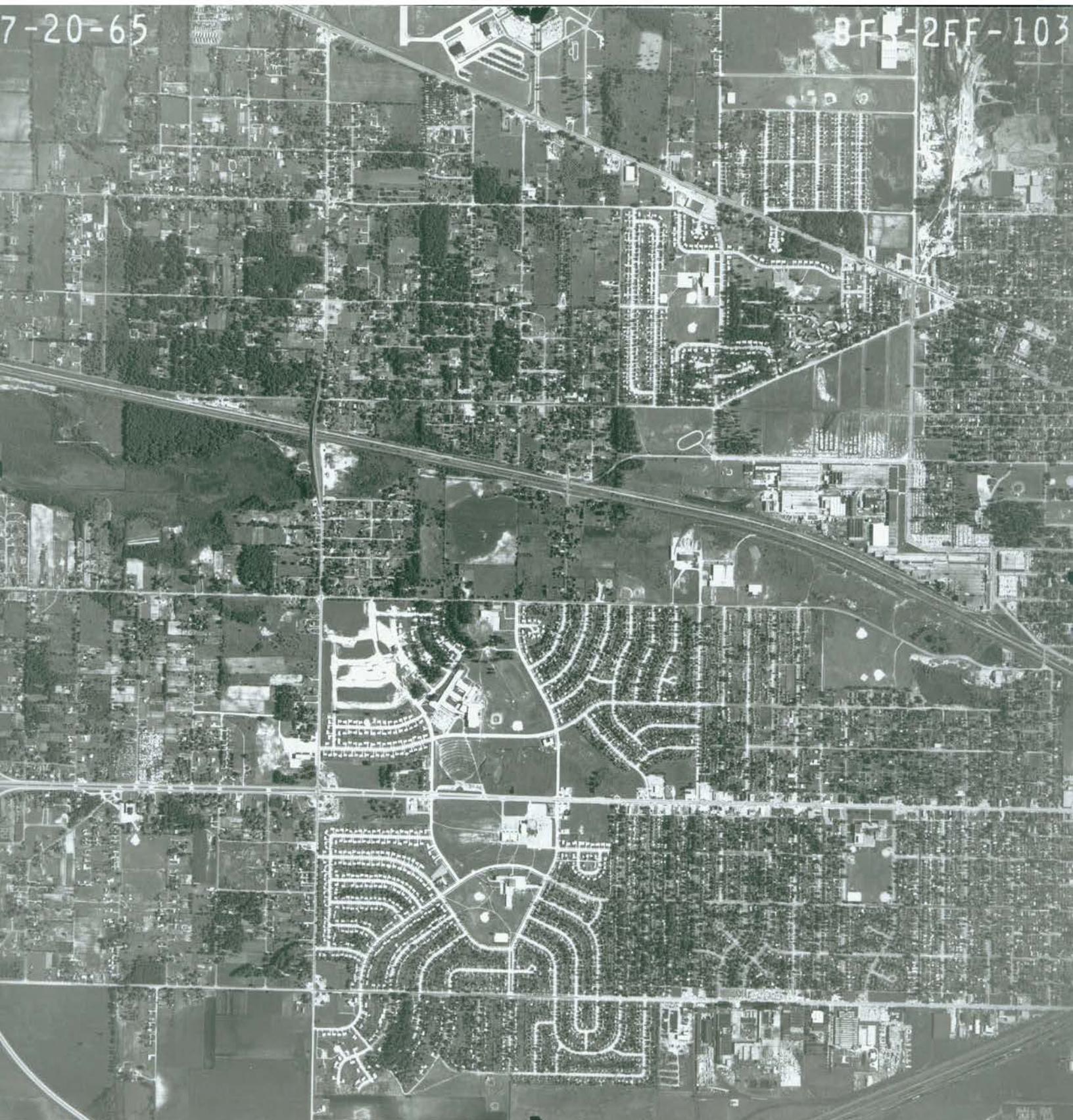
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APPENDIX I

ST. JOSEPH COUNTY HEALTH DEPARTMENT

COUNTY-CITY BUILDING - 8TH FLOOR

PHONE (219) 284-9750

SOUTH BEND, INDIANA 46601

JAMES E. BOWES, M.D., M.P.H.
HEALTH OFFICER

March 28, 1984

Mr. James R. Seitz
Superintendent
Department of Public Works
City of South Bend
301 South St. Louis
South Bend, Indiana 46617

Dear Mr. Seitz:

Subject: Property Described as 12.6 Acres in Section 10-37-2E
(LaSalle Park), St. Joseph County, Indiana

As you know, Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (the Act) requires owners or operators of hazardous waste facilities, as defined in the Act, or transporters of hazardous substances to such facilities, to notify the Environmental Protection Agency (EPA) of the existence of facilities and the types of hazardous substances that were treated, stored or disposed of at the facilities.

The Bendix Corporation in South Bend, Indiana ("Bendix") has advised this Office that on the basis of information recently discovered by Bendix at some time during the past forty (40) years Bendix, together with numerous other companies and individuals, disposed of certain hazardous waste materials at the landfill site known as the Beck's Lake Landfill. Bendix is required under the Act to notify the EPA of the fact that the landfill was utilized as a disposal site for such hazardous substances even though the disposals were not unlawful when made and were made with the specific permission of the owner or operator at that time. Since Bendix is notifying the EPA, Bendix and this Office feel that you should be advised that the notification is being made.

To the extent that any assessment of the present conditions of the site will be necessary, Bendix has employed a nationally known environmental consultant, ERM-North Central, Inc. of Palatine, Illinois, to assist this Office in this effort.

We ask you to notify this Office of the names of any company or person other than Bendix who disposed of wastes at the above-identified site.

If you have any questions regarding this notice, please call this Office at 284-9721.

Very truly yours,

Paul E. Trost
Pollution Control Officer

Notification of Hazardous Waste Site

Side Two

Waste Quantity:

Place an X in the appropriate boxes to indicate the facility types found at the site

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

Facility Type

- Piles
 - Land Treatment
 - Landfill
 - Tanks
 - Impoundment
 - Underground Injection
 - Drums, Above Ground
 - Drums, Below Ground
 - Other (Specify) _____

Total Facility Waste Amount

cubic feet unknown

gallons unknown

Total Facility Area

square feet unknown

scores See Item I

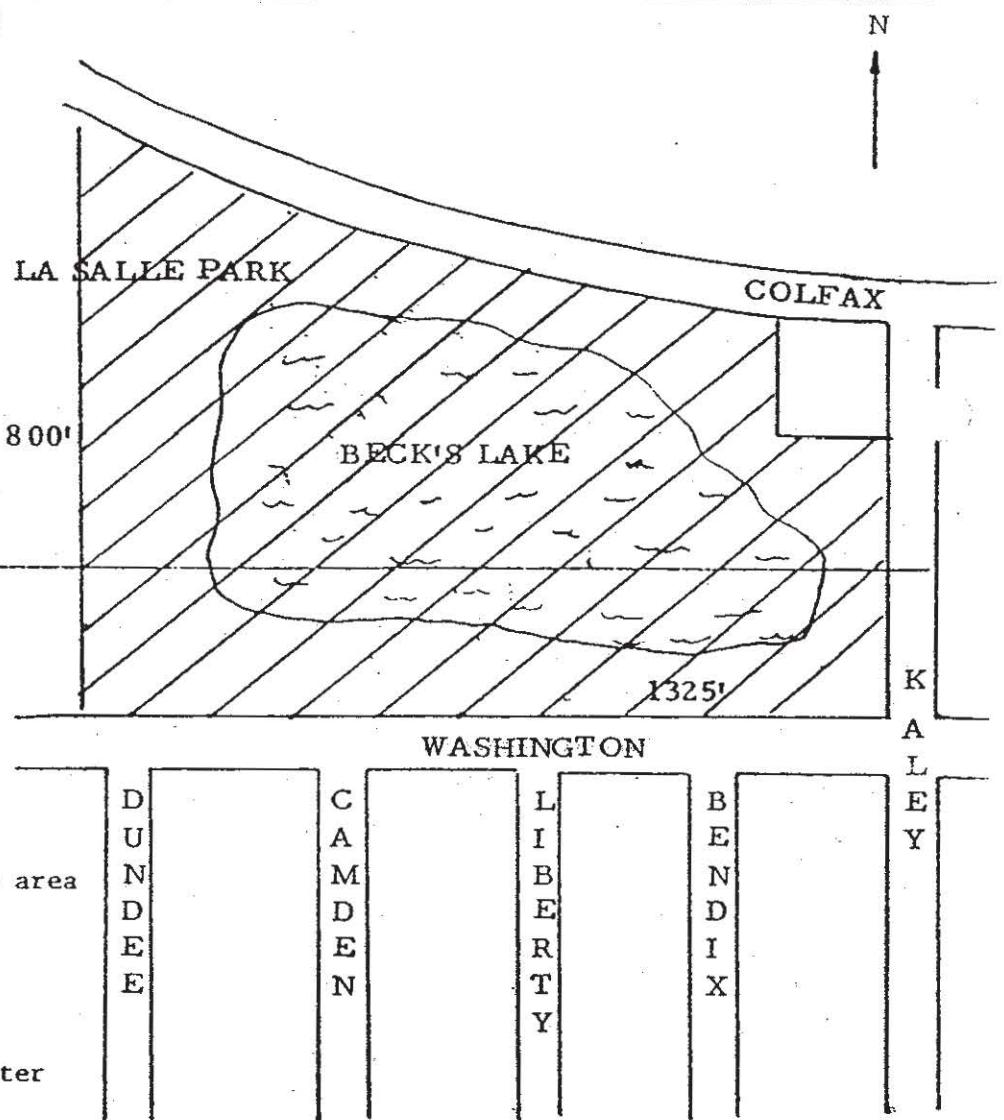
Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, Unknown Known Suspected Likely None or likely releases of wastes to the environment.

Note: Items Hand I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.



Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

- Site at some point within an area of approximately 15 acres.
 - Site owned by the City of South Bend.
 - Site area served by City Water System.

J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other".

THE BENDIX CORPORATION

Street 401 Bendix Drive (P.O. Box 4001)

City South Bend State IN Zip Code 46620

Signature Gerald J. Budzin, Manager
Manager of Environmental Control

- Owner, Present
- Owner, Past
- Transporter
- Operator, Present
- Operator, Past
- Other

March 28, 1984
Page 285 of 289

Bendix Corporation
South Bend, Indiana

Waste streams as suggested from Division of Land Pollution Control files and waste hauler reports. (Quantites are based on 1979-1980 reports.)

Asbestos containing fire brick

Paint Wastes (VM + P Naptha, aliphatic hydrocarbon solvent, Methyl Isobutyl Ketone, Ethanol and Mineral Spirits)

Tie Bar Wastes

M.O.C.A. contaminated wastes (4,4-Methylene bis 2-Chloroaniline)

Raw M.O.C.A wastes (approximately 30 gal/yr)

Asbestos dust

Asbestos pellets

Asbestos

Soluble Oil and Water Mixture (approximately 10,000 gal/mo)

Hydroxide Sludge

Chromium Spray Booth Paint Wastes

Touch-up Paint Wastes

Salt Bath Salts (Chloride salts?)

Chromic Acid

Zinc Hydroxide/Calcium phosphate sludge

Lead Hydroxide/Lead sulfide sludge

Wastewater treatment sludge (approximately 300 tons/yr)

Iron/Zinc phosphate sludge

Heat Treating Salts

Chromic Acid contaminated fiberglass pit liner

Chromic anodic tank clean-out

Chrome plating tape

Nickel waste

T-Line cleanout

Stoddard Solvents

Foundry Sand (see below for analysis)

Cadmium hydroxide sludge

Ferro Cyanide and Cyanide wastes

Naphtha

Bendix Corporation makes brakes, steering systems, brake components and streets for automobiles and airplanes. They notified on 17 sites, including their plant at 401 Bendix Drive, South Bend, Indiana. The other 16 properties are off-site and under private ownership. The site names, dates, and addresses are:

St. Joseph County Landfill, Jackson and Locust Roads, 1940-70

St. Joseph County Landfill, U.S. 31 and Ireland, 1969-1971

Dollar Lake Site, SR 23 and Mayflower Road, Early to mid 1960's

Area West of Bendix Oil Tank, Linden Avenue, 1940-1970

Beck's Lake Site, Colfax and Kaley Streets, until mid 1950's

Butternut Road Site, Butternut and Douglas Roads, 6 months in

1955-1960

Former City/County Landfill, Bendix Drive North of Lincolnway West, until early 1960's
Fillmore Road North Site, Fillmore Road West of Mayflower, 1 to 1 1/2 years in mid 1950's
Douglas Road Site, Douglas and Bendix Drive, 1960s to closure
Linden Road Site, Linden and Chippewa Roads, 30 days, 1970's
Pine Road Site, Pine and Fillmore Roads, mid 1960's
Sample Street Lagoon Site, 3300 West Sample Street, 1956-1972
Speeks Site, Bendix Drive and Douglas Road, mid 1960's thru early 1970's
South Bend Avenue Site, South Bend and Twy Kenham Avenue, unknown
Schuman Dump Site, Mayflower and Ireland Road, 1960-1970
Western Avenue Site, Elmer, Huron, Hollywood and Ford, unknown
All St. Joseph County-All South Bend

The Bendix Corporation has operated from approximately 1930 to the present time, although off-site disposal was halted sometime around 1973. The disposal dates are approximate in most cases and represent a "best effort" by the company prior to their filing in March of 1984.

Foundry Sand, (in ppm)
phenols, 1.2-to-4.6
Naphthalene, .460-to-2.400
Phenanthrene, .2
Zinc, .43-38
Selenium, .08
Methylene Chloride, .012-to-9.2
TCE, .039
1,1,2,2-Tetrochloroethylene, .016
Butylbenzylphalate, .6-to-.270
Arsenic, 17
Cadmium, 1.0-to-.01
Copper, 12
Lead, 14
Chromium, 6.7
Nickel, 3.4
Manganese, .053
Bis (2-ethylhexyl) phthalate, .680-to-.220
Toluene, .057
Pentachlorophenol, .520
1,3-Isobenzofurandione, 310

These numbers show some ranges resulting from many samplings at various dates. Note that cyanides, sulfates and chlorides were not run on these samples.

SB/sk

1976 Bendix Liquid Waste Removal Record

201,600 gallons emulsion
60,070 gallons Trichlorethylene (TCE) sludge
10,000 gallons Sodium Dichromate Waste
3,300 gallons Laquer Thinner Waste
1,500 gallons Copper Cyanide Stripper Waste
15,200 gallons Chromic Acid Waste
715 gallons Copper, Nickel and Cyanide Waste
825 gallons Cadmium Cyanide Waste
605 gallons methylene chloride
214,000 pounds Triad Sludge (unknown components)
33,225 gallons cyanide
1,045 gallons methyl chloroform
220 gallons Perchlorethylene
3 Transformers
3 Capacitors
1,265 gallons PCB oil
550 gallons PCB sludge
1,040 cubic yards/yr foundry sand (*see analysis other page in packet)

This is a tally of Bendix Corporation Liquid Waste Hauler reports for the year of 1976 to get an idea of wastes disposed of. This could be considered to be a representative sampling of the waste haulers reports and indicative of wastes possibly disposed of prior to 1973 or 1974 when their disposal practices were revised. Since many of the sites Bendix notified on fall into the period prior to 1973-4, this is a means to look at quantities and types of wastes possibly disposed of into off-site private and city/county facilities.

SB/sk